

STIC Search Report

EIC 1700

STIC Database Tracking Number: 183669

**TO: Dawn Garrett
Location: REM 10C79
Art Unit : 1774**

**March 31, 2006
Case Serial Number: 10/813833**

**From: Les Henderson
Location: EIC 1700
REMSEN 4A30
Phone: 571/272-2538
Leslie.Henderson@uspto.gov**

Search Notes

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: DAWN GARRETT Examiner #: 76107 Date: 3/30/2006
 Art Unit: 1774 Phone Number 301-523 Serial Number: 10/813,833
 Mail Box and Bldg/Room Location: _____ Results Format Preferred (circle) PAPER DISK E-MAIL
Remain 10079

If more than one search is submitted, please prioritize searches in order of need.

 Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Organic Element For Electroluminescent Device Pat. & T.M. Office
 Inventors (please provide full names): _____
(see Bib-Data sheet)
 Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search the boron complexes
 described in claim 1.

Please do not limit the search by utility
 since some of the claims are drawn to
 only the complexes.

Thank you.

STAFF USE ONLY

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher: <u>AK</u>	NA Sequence (#) _____	STN <u>\$736.35</u>	
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____	
Searcher Location: _____	Structure (#) <u>4</u>	Questel/Orbit _____	
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____	
Date Completed: <u>3/31/06</u>	Litigation _____	Lexis/Nexis _____	
Searcher Prep & Review Time: <u>30</u>	Fulltext _____	Sequence Systems _____	
Clerical Prep Time: <u>30</u>	Patent Family _____	WWW/Internet _____	
Online Time: <u>95</u>	Other _____	Other (specify) _____	

=> d his ful

(FILE 'HOME' ENTERED AT 09:07:50 ON 31 MAR 2006)

FILE 'HCAPLUS' ENTERED AT 09:08:08 ON 31 MAR 2006

E US20050221120/PN

L1 1 SEA ABB=ON PLU=ON US20050221120/PN
D ALL
SEL RN

FILE 'REGISTRY' ENTERED AT 09:08:51 ON 31 MAR 2006

L2 11 SEA ABB=ON PLU=ON (10025-87-3/BI OR 120-12-7/BI OR
122-39-4/BI OR 123847-85-8/BI OR 1810-66-8/BI OR
2085-33-8/BI OR 7637-07-2/BI OR 866022-56-2/BI OR
866022-57-3/BI OR 866022-58-4/BI OR 866122-68-1/BI)
D SCAN

FILE 'LREGISTRY' ENTERED AT 09:09:52 ON 31 MAR 2006

L3 STR

FILE 'REGISTRY' ENTERED AT 09:11:09 ON 31 MAR 2006

L4 50 SEA SSS SAM L3
D QUE STAT

L5 4001 SEA SSS FUL L3
SAV L5 GAR833/A

L6 1 SEA ABB=ON PLU=ON L2 AND L5
D SCAN

FILE 'LREGISTRY' ENTERED AT 09:17:15 ON 31 MAR 2006

L7 STR
D QUE STAT

FILE 'REGISTRY' ENTERED AT 09:32:07 ON 31 MAR 2006

L8 50 SEA SUB=L5 SSS SAM L7

L9 2588 SEA SUB=L5 SSS FUL L7
SAV L9 GAR833A/A
D SAV

L10 2 SEA ABB=ON PLU=ON L2 AND 1-5/B
D SCAN

L11 1 SEA ABB=ON PLU=ON L2 AND L9
D SCAN
D QUE STAT L9

FILE 'LREGISTRY' ENTERED AT 09:37:09 ON 31 MAR 2006

L12 STR L7

FILE 'REGISTRY' ENTERED AT 09:37:55 ON 31 MAR 2006

L13 3 SEA SUB=L5 SSS SAM L12
D SCAN

L14 91 SEA SUB=L5 SSS FUL L12

L15 1 SEA ABB=ON PLU=ON L2 AND L14

FILE 'HCAPLUS' ENTERED AT 09:39:27 ON 31 MAR 2006

L16 38 SEA ABB=ON PLU=ON L14
D L16 1-9 FHITSTR

FILE 'LREGISTRY' ENTERED AT 09:41:24 ON 31 MAR 2006

L17 STR

FILE 'REGISTRY' ENTERED AT 09:45:59 ON 31 MAR 2006

D QUE STAT L14
SAV L14 GAR833B/A
D QUE STAT L9
D QUE STAT L14

L18 50 SEA SUB=L9 SSS SAM L17

L19 2499 SEA SUB=L9 SSS FUL L17
SAV L19 GAR833C/A

L20 1521 SEA ABB=ON PLU=ON L19 AND NR>4
SAV L20 GAR833D/A
D QUE STAT L14

L21 40 SEA ABB=ON PLU=ON L19 AND L14

L22 28 SEA ABB=ON PLU=ON L21 AND NR>4
D SCAN
D QUE STAT L20

L23 1493 SEA ABB=ON PLU=ON L20 NOT L22
D QUE STAT
D QUE STAT L14

L24 64 SEA ABB=ON PLU=ON L14 AND NR>4

L25 27 SEA ABB=ON PLU=ON L14 NOT L24
D QUE STAT L19

L26 1590 SEA ABB=ON PLU=ON L9 AND NR>4

L27 33 SEA ABB=ON PLU=ON L26 NOT (L20 OR L22 OR L24)
D SCAN
D QUE STAT L14

FILE 'HCAPLUS' ENTERED AT 10:12:19 ON 31 MAR 2006

L28 29 SEA ABB=ON PLU=ON L24

L29 14 SEA ABB=ON PLU=ON L22

L30 13 SEA ABB=ON PLU=ON L25

L31 645 SEA ABB=ON PLU=ON L26

L32 626 SEA ABB=ON PLU=ON L20

L33 9 SEA ABB=ON PLU=ON L27

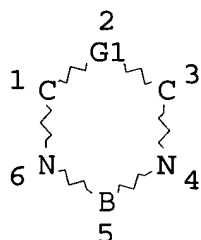
L34 42 SEA ABB=ON PLU=ON (L28 OR L29 OR L30) OR L33
D QUE STAT L16

L35 4 SEA ABB=ON PLU=ON L34 NOT L16
 D SCAN
 S L34 OR L17
 L36 42 SEA ABB=ON PLU=ON L34 OR L16
 L37 645 SEA ABB=ON PLU=ON L31 OR L32
 L38 609 SEA ABB=ON PLU=ON L37 NOT L36
 D QUE STAT L36

FILE 'REGISTRY' ENTERED AT 10:24:14 ON 31 MAR 2006
 L39 2239 SEA ABB=ON PLU=ON L5 AND NR>4

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 L40 875 SEA ABB=ON PLU=ON L39
 L41 230 SEA ABB=ON PLU=ON L40 NOT L37

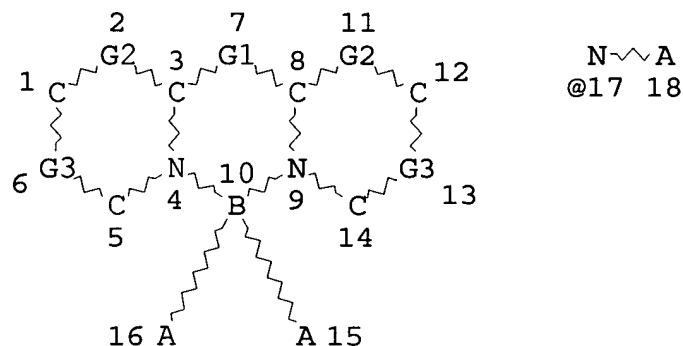
=> => d que stat l36
 L3 STR



VAR G1=C/N
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

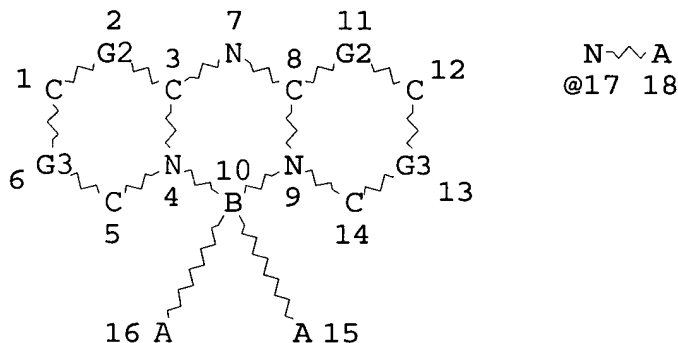
STEREO ATTRIBUTES: NONE
 L5 4001 SEA FILE=REGISTRY SSS FUL L3
 L7 STR



VAR G1=C/N
VAR G2=C/O/S/SE/17
REP G3=(0-1) C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE
L9 2588 SEA FILE=REGISTRY SUB=L5 SSS FUL L7
L12 STR



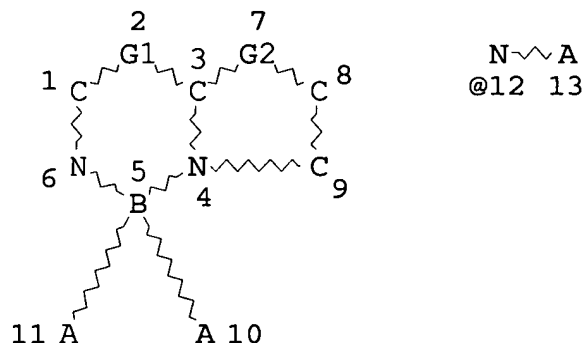
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REP G3=(0-1) C
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE

L14 91 SEA FILE=REGISTRY SUB=L5 SSS FUL L12
 L16 38 SEA FILE=HCAPLUS ABB=ON PLU=ON L14
 L17 STR



VAR G1=C/N

VAR G2=C/O/S/SE/12

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L19 2499 SEA FILE=REGISTRY SUB=L9 SSS FUL L17
 L20 1521 SEA FILE=REGISTRY ABB=ON PLU=ON L19 AND NR>4
 L21 40 SEA FILE=REGISTRY ABB=ON PLU=ON L19 AND L14
 L22 28 SEA FILE=REGISTRY ABB=ON PLU=ON L21 AND NR>4
 L24 64 SEA FILE=REGISTRY ABB=ON PLU=ON L14 AND NR>4
 L25 27 SEA FILE=REGISTRY ABB=ON PLU=ON L14 NOT L24
 L26 1590 SEA FILE=REGISTRY ABB=ON PLU=ON L9 AND NR>4
 L27 33 SEA FILE=REGISTRY ABB=ON PLU=ON L26 NOT (L20 OR L22
 OR L24)
 L28 29 SEA FILE=HCAPLUS ABB=ON PLU=ON L24
 L29 14 SEA FILE=HCAPLUS ABB=ON PLU=ON L22
 L30 13 SEA FILE=HCAPLUS ABB=ON PLU=ON L25
 L33 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L27
 L34 42 SEA FILE=HCAPLUS ABB=ON PLU=ON (L28 OR L29 OR L30)
 OR L33
 L36 42 SEA FILE=HCAPLUS ABB=ON PLU=ON L34 OR L16

=> d l36 1-42 ibib abs hitstr hitind

L36 ANSWER 1 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:30273 HCAPLUS
DOCUMENT NUMBER: 144:138538
TITLE: Hole-trapping materials for improved OLED
efficiency
INVENTOR(S): Jarikov, Viktor V.
PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: U.S. Pat. Appl. Publ., 37 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
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US 2006008672	A1	20060112	US 2004-889654

2004

0712

PRIORITY APPLN. INFO.: US 2004-889654

2004

0712

AB Organic light-emitting devices comprising a light-emitting layer including a host, a dopant, and a hole-trapping material are described in which the hole-trapping material is provided at 0.01 to less than 5 volume % relative to the light-emitting layer volume and has an oxidation potential that is selected so that it is less than the oxidation potential of the host in order to serve as a hole trap, so as to avoid formation of a certain charge transfer complex between the hole-trapping material and the host if the charge transfer complex causes a reduction in the electroluminescent efficiency of the dopant, and so as to avoid formation of the charge transfer complex between the hole-trapping material and the

dopant.

IT 593245-96-6 676120-56-2 873430-38-7

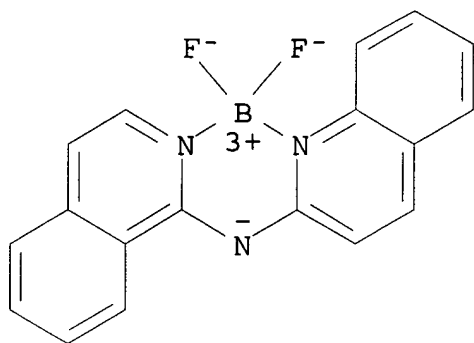
RL: DEV (Device component use); MOA (Modifier or additive use);

USES (Uses)

(organic light-emitting devices employing hole-trapping materials)

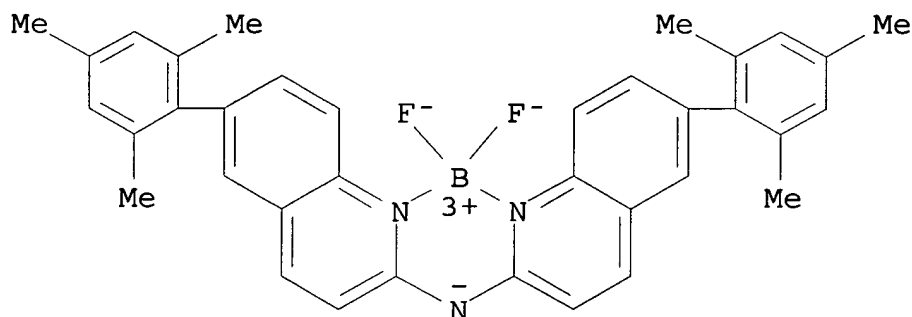
RN 593245-96-6 HCAPLUS

CN Boron, difluoro[N-(1-isoquinolinyl- κ N)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



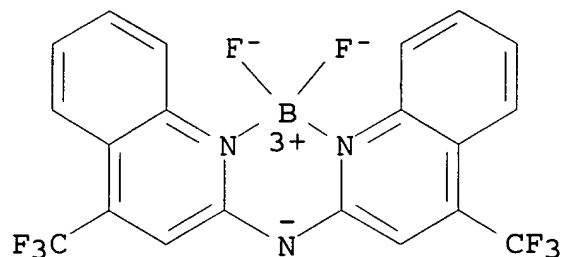
RN 676120-56-2 HCAPLUS

CN Boron, difluoro[6-(2,4,6-trimethylphenyl)-N-[6-(2,4,6-trimethylphenyl)-2-quinolinyl- κ N]-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 873430-38-7 HCAPLUS

CN INDEX NAME NOT YET ASSIGNED



INCL 428690000; 428917000; 428212000; 313504000; 257102000; 257103000;
313506000; 257-E51.022; 257-E51.026

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 76

IT 190-26-1, Ovalene 197-74-0, Dibenzo[b,k]perylene 198-55-0,
Perylene 5869-30-7, Dibenzo[b,ghi]perylene 55035-42-2,
4-(Diphenylamino)-4'-[4-(diphenylamino)styryl]stilbene
55035-43-3, 4-(Di-p-Tolylamino)-4'-[(di-p-
tolylamino)styryl]stilbene 62555-95-7 62556-02-9

65181-78-4,

N,N'-Bis(3-methylphenyl)-N,N'-diphenylbenzidine 80663-92-9,
2,5,8,11-Tetra-tert-butylperylene 96323-47-6 119564-27-1
123847-85-8 124729-98-2, MTDATA 369612-04-4,
2,8-Di-tert-Butylperylene 374592-88-8 503624-47-3
593245-96-6 676120-56-2 873430-38-7

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(organic light-emitting devices employing hole-trapping materials)

L36 ANSWER 2 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1333963 HCAPLUS

DOCUMENT NUMBER: 144:78065

TITLE: Array of light-emitting OLED microcavity pixels

INVENTOR(S): Ricks, Michele L.; Hatwar, Tukaram K.;
Spindler, Jeffrey P.; Winters, Dustin L.;
Shore, Joel D.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S. Pat. Appl. Publ., 36 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

DATE	PATENT NO.	KIND	DATE	APPLICATION NO.
2004	US 2005280008	A1	20051222	US 2004-869115
0616	WO 2006009612	A1	20060126	WO 2005-US19807
2005				
0603	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,			
ZW	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
PRIORITY APPLN. INFO.:			US 2004-869115	A

2004

0616

AB A color OLED display has at least three different colored microcavity pixels, each including a light reflective structure and a semi-transparent structure includes an array of light-emitting microcavity pixels each having one or more common organic light-emitting layers, said light-emitting layer(s) including first and second light-emitting materials, resp., that produce different light spectra, the first light-emitting material producing light having a first spectrum portion that extends between first and second different colors of the array, and the second light-emitting material producing light having a second spectrum portion that is substantially contained within a third color that is different from the first and second colors, and each

different colored pixel being tuned to produce light in one of the

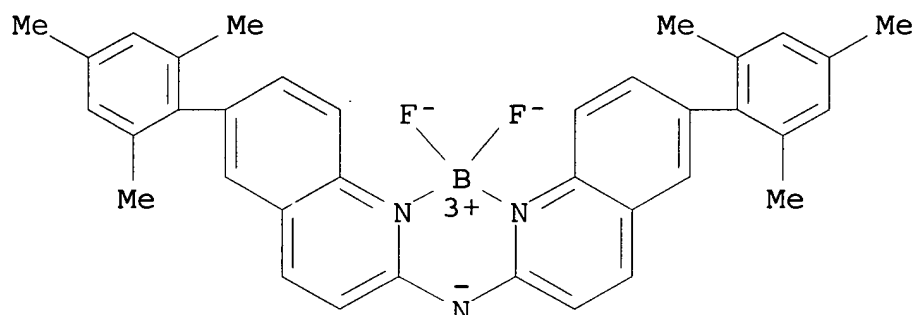
three different colors whereby the first, second, and third different colors are produced by the OLED display.

IT 676120-56-2

RL: TEM (Technical or engineered material use); USES (Uses)
(light emitting compound; array of light-emitting OLED microcavity pixels containing)

RN 676120-56-2 HCAPLUS

CN Boron, difluoro[6-(2,4,6-trimethylphenyl)-N-[6-(2,4,6-trimethylphenyl)-2-quinolinyl-κN]-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM H01L027-15

INCL 257079000

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 175606-05-0 676120-56-2

RL: TEM (Technical or engineered material use); USES (Uses)
(light emitting compound; array of light-emitting OLED microcavity pixels containing)

L36 ANSWER 3 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1200232 HCAPLUS

DOCUMENT NUMBER: 143:449546

TITLE: Tuned microcavity color OLED display

INVENTOR(S): Hatwar, Tukaram K.; Spindler, Jeffrey P.;
Ricks, Michele L.; Winters, Dustin L.; Shore,
Joel D.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S. Pat. Appl. Publ., 33 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
US 2005249972	A1	20051110	US 2004-838665
WO 2005116969	A2	20051208	WO 2005-US13959

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-838665 A

2004

0504

AB A color OLED display is described having at least 3 different colored microcavity pixels including a light-reflective structure and a semitransparent structure comprising an array of light-emitting microcavity pixels each having one or more common organic light-emitting layers, the light-emitting layer(s) having 1st, 2nd, and 3rd light-emitting materials that produce different light spectra. The 1st light-emitting material producing light has a 1st spectrum portion that is substantially contained within a 1st color of the array, the 2nd light-emitting material producing light has a 2nd spectrum portion that is substantially contained within a 2nd color that is different from the 1st color, and the 3rd light-emitting material producing light has a 3rd

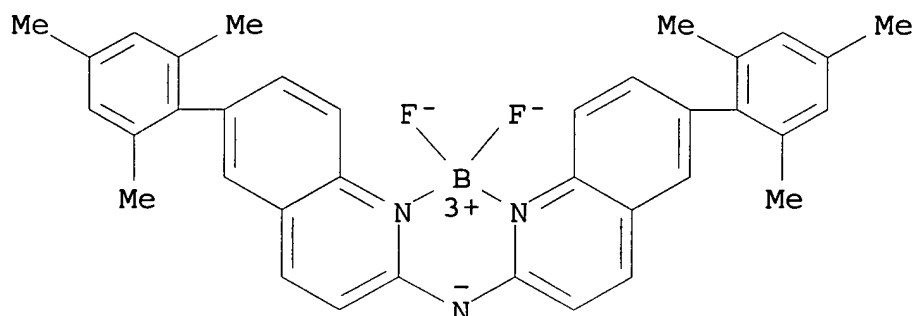
spectrum portion that is substantially contained within a 3rd color that is different from the 1st and 2nd colors.

IT **676120-56-2**

RL: NUU (Other use, unclassified); USES (Uses)
(tuned microcavity color OLED display)

RN 676120-56-2 HCAPLUS

CN Boron, difluoro[6-(2,4,6-trimethylphenyl)-N-[6-(2,4,6-trimethylphenyl)-2-quinolinyl-κN]-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM H05B033-12

INCL 428690000; 428917000; 313504000; 313506000; 313112000; 313113000; 257089000; 257098000

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 122648-99-1 155306-71-1 172285-79-9 175606-05-0

221455-80-7 274905-73-6 331749-28-1 331749-29-2

331749-30-5 331749-31-6 **676120-56-2** 862501-00-6

868839-39-8 868839-40-1 868839-41-2 868839-42-3

RL: NUU (Other use, unclassified); USES (Uses)

(tuned microcavity color OLED display)

L36 ANSWER 4 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1171227 HCAPLUS

DOCUMENT NUMBER: 144:83126

TITLE: Supramolecular Photonic Therapeutic Agents

AUTHOR(S): McDonnell, Shane O.; Hall, Michael J.; Allen, Lorcan T.; Byrne, Annette; Gallagher, William M.; O'Shea, Donal F.

CORPORATE SOURCE: Centre for Synthesis and Chemical Biology, Conway Institute, School of Chemistry and Chemical Biology and School of Biomolecular and Biomedical Science, University College Dublin, Dublin, Ire.

SOURCE: Journal of the American Chemical Society

(2005), 127(47), 16360-16361

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new approach to achieving selectivity for photodynamic therapy based upon the reversible off/on switching of the key therapeutic property (singlet oxygen generation) of a supramol. photonic therapeutic agent (SPTA) in response to an external stimulus in the surrounding microenvironment is described. A series of SPTA analogs with pH responsive receptors of varying pKa are presented,

in which the generation of singlet oxygen is shown to be dependent upon a proton source. For example, systems have been constructed such that the excited state energy of the photosensitizer can be decayed by a rapid photoinduced electron transfer (PET) mechanism,

resulting in virtually no singlet oxygen being generated, but when the amine receptor is protonated the PET mechanism does not operate and singlet oxygen is produced. In vitro efficacy demonstrated that the SPTA derivs. can be activated within cells and one analog is measured to have an EC50 value of 5.8 nM when assayed in the MRC5 cell line.

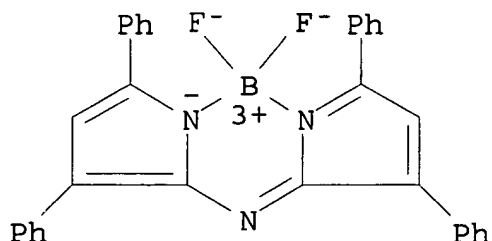
IT 154827-68-6 872168-65-5 872168-66-6
872168-67-7

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

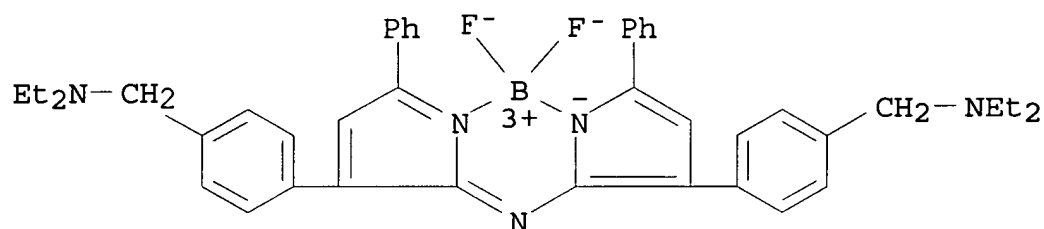
(supramol. photonic therapeutic agents: properties and cellular uptake in relation for use as PDT photosensitizers)

RN 154827-68-6 HCAPLUS

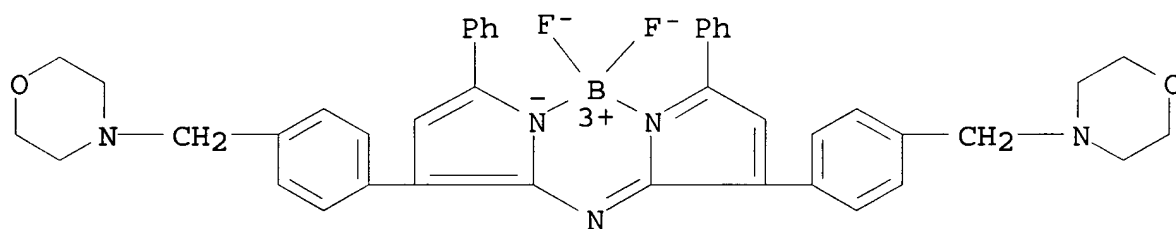
CN Boron, [N-(3,5-diphenyl-2H-pyrrol-2-ylidene-κN)-3,5-diphenyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



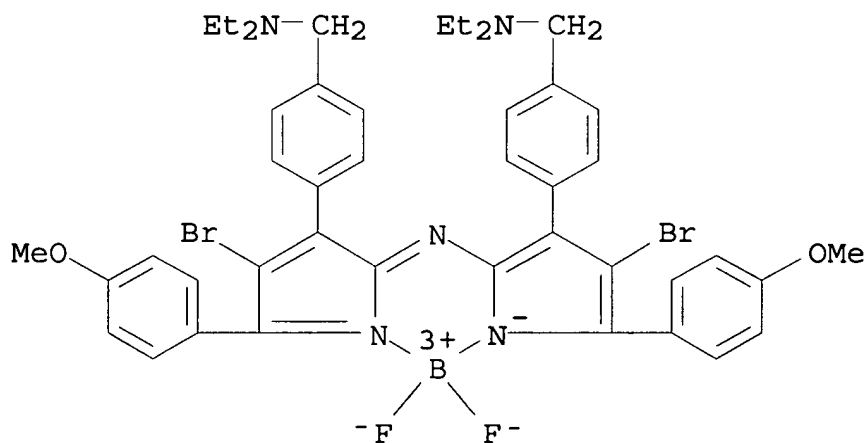
RN 872168-65-5 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED



RN 872168-66-6 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED



RN 872168-67-7 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED



CC 8-9 (Radiation Biochemistry)

IT 154827-68-6 872168-65-5 872168-66-6
872168-67-7

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(supramol. photonic therapeutic agents: properties and cellular

uptake in relation for use as PDT photosensitizers)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS

AVAILABLE

IN THE RE FORMAT

L36 ANSWER 5 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1077990 HCAPLUS

DOCUMENT NUMBER: 143:376176

TITLE: Organic element for electroluminescent
devices

employing a light-emitting material based on

a

boron complex with a tertiary amine
substituent

INVENTOR(S): Owczarczyk, Zbyslaw R.; Brown, Christopher
T.;

Jarikov, Viktor V.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S. Pat. Appl. Publ., 25 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
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DATE

US 2005221120

A1

20051006

US 2004-813835

2004

0331

WO 2005100507

A1

20051027

WO 2005-US9027

2005

0317

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT,
LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2004-813833

A

2004

0331

AB An electroluminescent device comprises a light-emitting layer containing a host and a light-emitting material where the light-emitting material comprises a boron complex containing boron

complexed by two ring nitrogens of a deprotonated bis(aromatic)amine or bis(aromatic)methene ligand where the boron complex contains a tertiary amine substituent group. The invention provides a material for a light-emitting layer of an EL device that exhibits improved luminance efficiency.

IT **866122-68-1P**

RL: DEV (Device component use); MOA (Modifier or additive use); PRP (Properties); SPN (Synthetic preparation); PREP

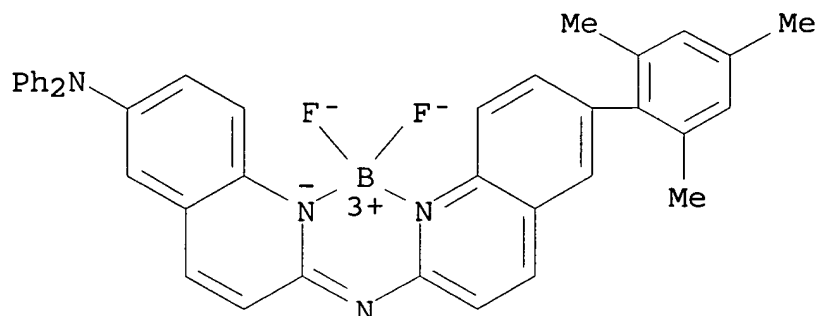
(Preparation);

USES (Uses)

(organic element for electroluminescent devices employing light-emitting material based on boron complex with tertiary amine substituent)

RN 866122-68-1 HCAPLUS

CN Boron, [N-[6-(diphenylamino)-2(1H)-quinolinylidene-κN]-6-(2,4,6-trimethylphenyl)-2-quinolinaminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM H05B033-14

ICS C09K011-06

INCL 428690000; 428917000; 313504000; 313506000; 313112000; 257098000;
568001000; 546013000; 548110000; 548405000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related
Properties)

Section cross-reference(s): 28, 74, 76

IT **866122-68-1P**

RL: DEV (Device component use); MOA (Modifier or additive use);

PRP (Properties); SPN (Synthetic preparation); PREP

(Preparation);

USES (Uses)

(organic element for electroluminescent devices employing
light-emitting material based on boron complex with tertiary
amine substituent)

L36 ANSWER 6 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1027955 HCAPLUS

DOCUMENT NUMBER: 143:335933

TITLE: Organic element for electroluminescent
devices

INVENTOR(S): Conley, Scott R.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S. Pat. Appl. Publ., 24 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
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US 2005208329	A1	20050922	US 2004-803770

2004

0318

PRIORITY APPLN. INFO.:

US 2004-803770

2004

0318

AB Electroluminescent devices are described which comprise a cathode, an anode, and, between the electrodes, a layer (especially the light-emitting layer) containing a host material and a second material comprising a bis(aryloxy)azine borohalide complex 0.5-20 weight %.

The light-emitting layers may contain addnl. compds. which emit light. Preferably, the borohalide complex is present in sufficient quantity to improve the stability of the device. Display devices and area lighting devices incorporating the electroluminescent devices, and a process for emitting light from them, are also described.

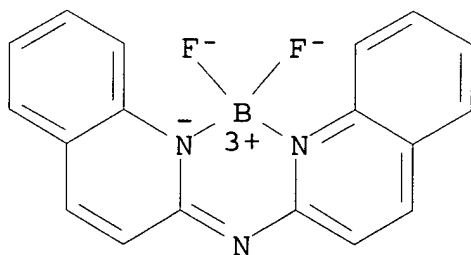
IT **23786-74-5D**, derivs.

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(electroluminescent devices with bis(aryloxy)azine borohalide complex-containing layers)

RN 23786-74-5 HCAPLUS

CN Boron, difluoro[N-(2(1H)-quinolinylidene-κN)-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM H05B033-14

INCL 428690000; 428917000; 313504000; 313506000; 313112000; 257098000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 76

IT 23786-74-5D, derivs. 55035-42-2D, derivs. 80663-92-9,
2,5,8,11-Tetra-tert-butyl perylene 144810-08-2D, derivs.
865085-74-1

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(electroluminescent devices with bis(aryloxy)azine borohalide
complex-containing layers)

L36 ANSWER 7 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1026523 HCAPLUS

DOCUMENT NUMBER: 143:335928

TITLE: White organic light-emitting devices with
improved performance with hole-transporting
layers containing light-emitting naphthacene
derivatives

INVENTOR(S): Begley, William J.; Hatwar, Tukaram K.;
Rajeswaran, Manju; Andrievsky, Natasha

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 49 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
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US 2005208327	A1	20050922	US 2004-801997

2004

0316

WO 2005093008	A1	20051006	WO 2005-US6823
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2005

0302

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
 CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT,
 LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
 CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2004-801997

A

2004

0316

AB Organic light-emitting diodes producing white light comprising an anode, a hole-transporting layer disposed over the anode, a blue light-emitting layer disposed over the hole-transporting layer,

an

electron-transporting layer disposed over the blue light-emitting layer, and a cathode disposed over the electron-transporting

layer

are described in which the hole-transporting layer comprises an entire layer or a partial portion of a layer in contact with the blue light-emitting layer and contains a selected light-emitting naphthacene derivative (especially a rubrene derivative).

IT 23786-72-3 676120-51-7 676120-52-8

676120-53-9 676120-54-0 676120-55-1

676120-56-2 676120-57-3 676120-58-4

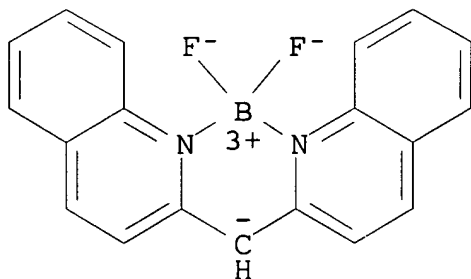
676120-59-5

RL: DEV (Device component use); USES (Uses)

(white organic light-emitting devices with hole-transporting layers containing light-emitting naphthacene derivs.)

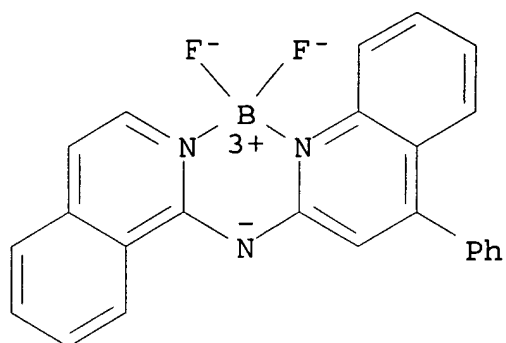
RN 23786-72-3 HCAPLUS

CN Boron, difluoro[[2,2'-methylenebis[quinolinato-κN]](1-)]-,
 (T-4)- (9CI) (CA INDEX NAME)



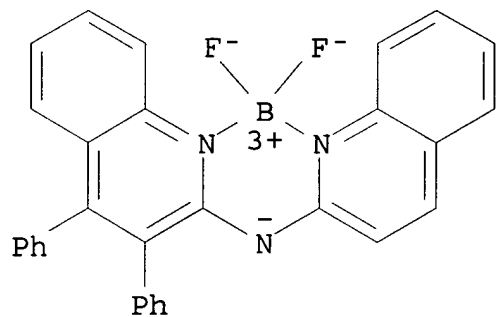
RN 676120-51-7 HCAPLUS

CN Boron, difluoro[N-(1-isoquinolinyl-κN)-4-phenyl-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



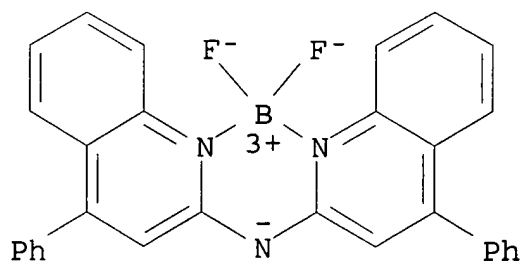
RN 676120-52-8 HCAPLUS

CN Boron, [3,4-diphenyl-N-(2-quinolinyl-κN)-2-quinolinaminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 676120-53-9 HCAPLUS

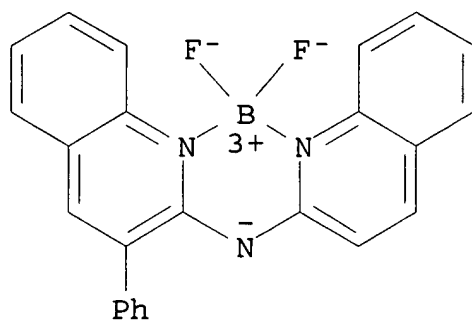
CN Boron, difluoro[4-phenyl-N-(4-phenyl-2-quinolinyl-κN)-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 676120-54-0 HCAPLUS

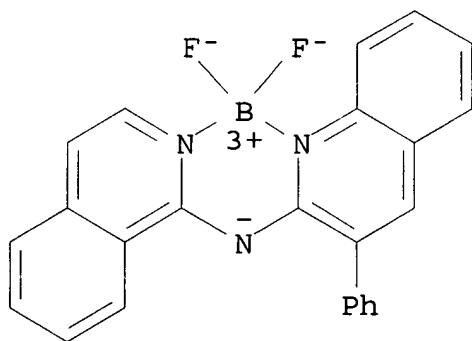
CN Boron, difluoro[3-phenyl-N-(2-quinolinyl-κN)-2-

quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



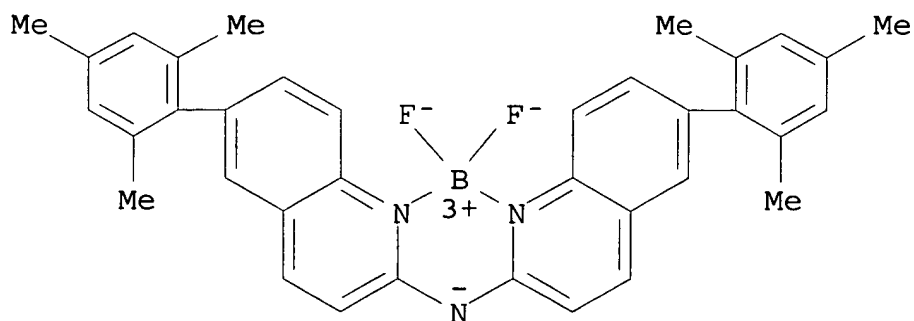
RN 676120-55-1 HCAPLUS

CN Boron, difluoro[N-(1-isoquinolinyl- κ N)-3-phenyl-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



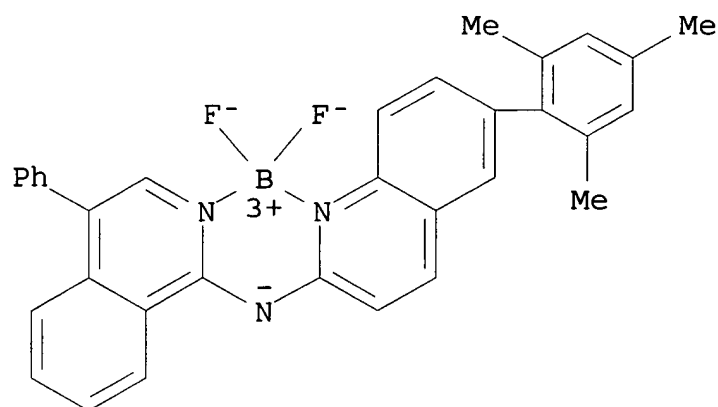
RN 676120-56-2 HCAPLUS

CN Boron, difluoro[6-(2,4,6-trimethylphenyl)-N-[6-(2,4,6-trimethylphenyl)-2-quinolinyl- κ N]-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



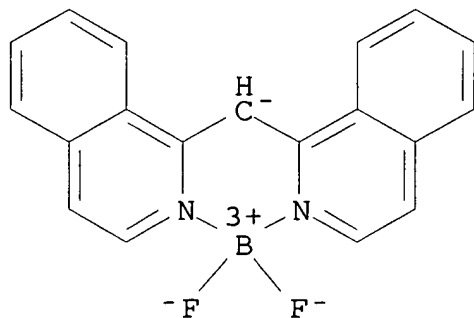
RN 676120-57-3 HCAPLUS

CN Boron, difluoro[N-(4-phenyl-1-isoquinolinyl- κ N)-6-(2,4,6-trimethylphenyl)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



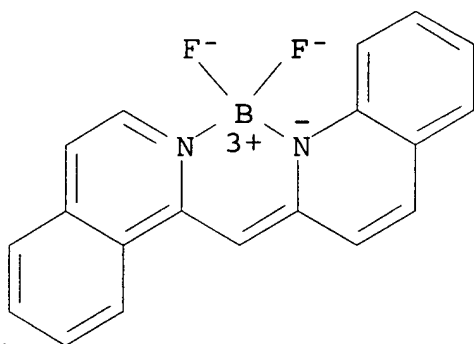
RN 676120-58-4 HCAPLUS

CN Boron, difluoro[[1,1'-methylenebis[isoquinolinato- κ N]](1-)]-, (T-4)- (9CI) (CA INDEX NAME)



RN 676120-59-5 HCAPLUS

CN Boron, difluoro[2-[(1-isoquinolinyl- κ N)methylene]-1(2H)-quinolinyl- κ N]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM H05B033-14
 INCL 428690000; 428917000; 428332000; 313504000; 313506000; 313112000;
 257098000
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related
 Properties)
 Section cross-reference(s): 25, 76
 IT 147-14-8, Copper phthalocyanine 1428-67-7D, DPN, derivs.
 7429-90-5, Aluminum, uses 7789-24-4, Lithium fluoride, uses
 11099-20-0 12798-95-7 **23786-72-3** 37271-44-6
 42029-62-9 51311-17-2, Carbon fluoride 55035-43-3
 55035-43-3D, derivs. 80663-92-9, 2,5,8,11-Tetra-tert-butyl
 perylene 122648-99-1 122648-99-1D, derivs. 123847-85-8, NPB
 124729-98-2, m-MTDATA 155306-71-1, C545T 221455-80-7
 256425-63-5, C545TB 274905-73-6 274905-73-6D, derivs.
 574749-25-0 **676120-51-7** **676120-52-8**
676120-53-9 **676120-54-0** **676120-55-1**
676120-56-2 **676120-57-3** **676120-58-4**
676120-59-5 676120-60-8 862501-00-6 862501-00-6D,
 derivs.
 RL: DEV (Device component use); USES (Uses)
 (white organic light-emitting devices with hole-transporting
 layers containing light-emitting naphthacene derivs.)

L36 ANSWER 8 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:823196 HCAPLUS
 DOCUMENT NUMBER: 143:219254
 TITLE: Anthracene derivative host having ranges of
 dopants
 INVENTOR(S): Ricks, Michele L.; Hatwar, Tukaram K.;
 Spindler, Jeffrey P.; Cosimbescu, Lelia
 PATENT ASSIGNEE(S): Eastman Kodak Company, USA
 SOURCE: U.S. Pat. Appl. Publ., 33 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
US 2005181232	A1	20050818	US 2004-780436
WO 2005080527	A1	20050901	WO 2005-US3879

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

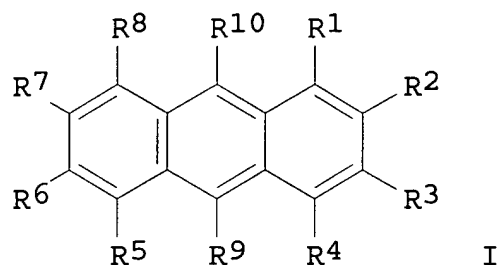
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-780436 A

2004

0217

GI



AB White light-emitting organic light-emitting devices including spaced

apart anodes and cathodes, and having blue light-emitting and yellow, orange, or red light-emitting layers are described in which the blue light-emitting layer includes a host material comprising a monoanthracene derivative are described by the

general

formula I (R1-8 = H; R9 is not the same as R10; R9 = a naphthyl group having no fused rings with aliphatic carbon ring members;

and

R10 = a biphenyl group having no fused rings with aliphatic carbon

ring members; and R9 and R10 are free of amines and sulfur compds.). The devices may be provided with color filters.

Displays and area lighting systems incorporating the devices are also described.

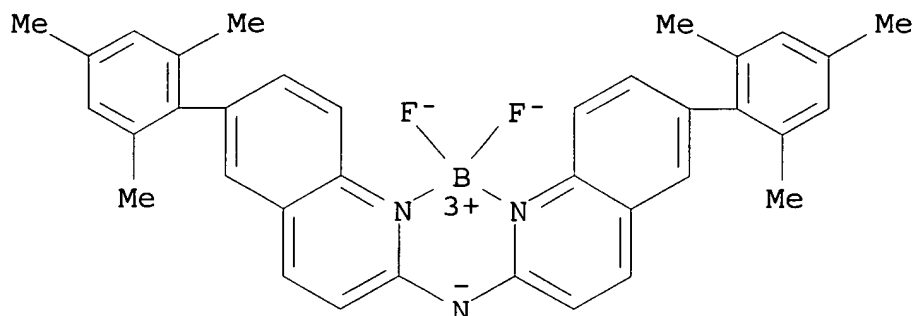
IT **676120-56-2**

RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(white light-emitting organic light-emitting devices employing anthracene derivative hosts)

RN 676120-56-2 HCAPLUS

CN Boron, difluoro[6-(2,4,6-trimethylphenyl)-N-[6-(2,4,6-trimethylphenyl)-2-quinolinyl-κN]-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM H05B033-14

INCL 428690000; 428917000; 313504000; 313506000; 313112000; 257098000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 74, 76

IT 517-51-1, Rubrene 55035-43-3; 4-(Di-p-tolylamino)-4'-[(di-p-tolylamino)styryl]stilbene 80663-92-9 123847-85-8, NPB
676120-56-2

RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)

(white light-emitting organic light-emitting devices employing anthracene derivative hosts)

L36 ANSWER 9 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:698180 HCAPLUS

DOCUMENT NUMBER: 143:202639

TITLE: Organic element for electroluminescent devices

employing a bis(azinyl)methene boron complex
 INVENTOR(S): Vargas, J. Ramon; Kondakov, Denis Y.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S. Pat. Appl. Publ., 25 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
US 2005170204	A1	20050804	US 2004-768327

2004

0130

WO 2005076385 A1 20050818 WO 2005-US2344

2005

0118

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
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PRIORITY APPLN. INFO.:

US 2004-768327 A

2004

0130

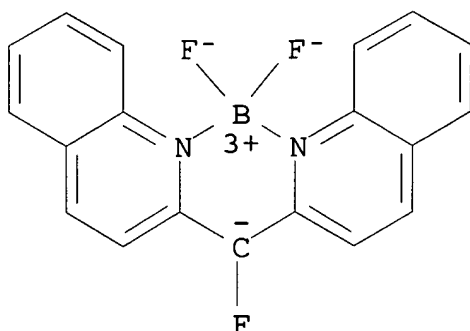
AB Disclosed is an OLED device comprising a light-emitting layer
containing a light emitting bis(azinyl)methene boron complex
compound
comprising a complex system of at least five fused rings and
bearing, on at least one ring carbon or nitrogen, a substituent
sufficient to provide a wavelength of maximum emission of less
than
520 nm as measured at a concentration of <10⁻³M in Et acetate
solvent.

IT 861928-35-0 861928-36-1 861928-37-2
861928-38-3 861928-39-4 861928-40-7
861928-41-8 861928-42-9 861928-43-0
861928-44-1 861928-45-2 861928-46-3
861928-47-4 861928-48-5 861928-49-6
861928-50-9 861928-51-0 861928-52-1
861928-53-2 861928-54-3 861928-55-4

RL: DEV (Device component use); USES (Uses)
(organic element for electroluminescent devices employing
bis(azinyl)methene boron complex)

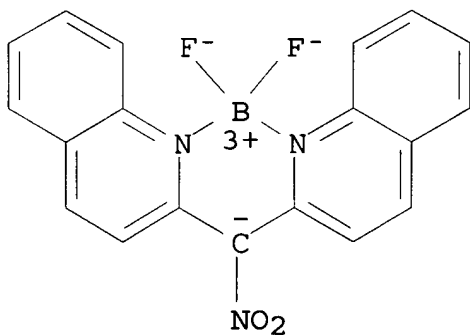
RN 861928-35-0 HCAPLUS

CN Boron, difluoro[[2,2'-(fluoromethylene)bis[quinolinato-
κN]](1-)]-, (T-4)- (9CI) (CA INDEX NAME)



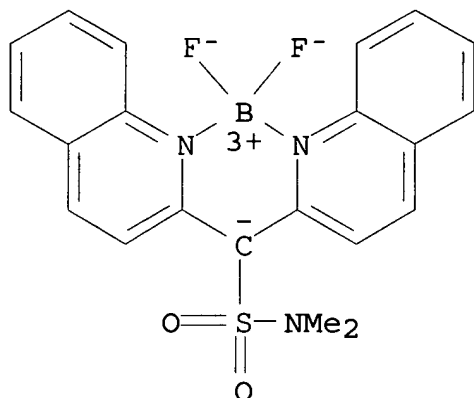
RN 861928-36-1 HCAPLUS

CN Boron, difluoro[[2,2'-(nitromethylene)bis[quinolinato-κN]](1-)]-, (T-4)- (9CI) (CA INDEX NAME)



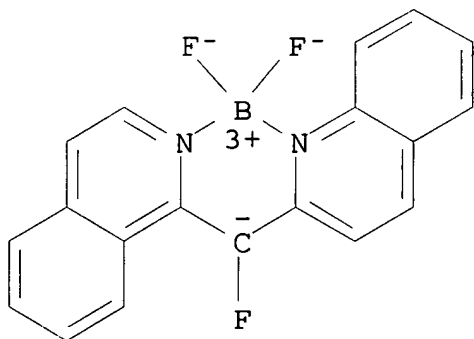
RN 861928-37-2 HCAPLUS

CN Boron, [N,N-dimethyl-α-(2-quinolinyl-κN)-2-quinolinemethanesulfonamidato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



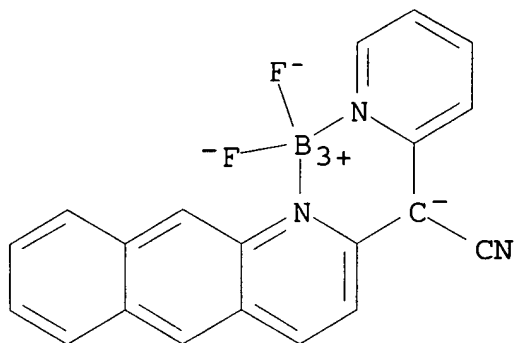
RN 861928-38-3 HCAPLUS

CN Boron, difluoro[2-[fluoro(2-isoquinolinyl- κ N)methyl]quinolinato- κ N]-, (T-4)- (9CI) (CA INDEX NAME)



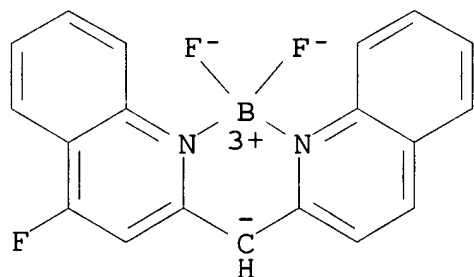
RN 861928-39-4 HCAPLUS

CN Boron, difluoro[α -(2-pyridinyl- κ N)benzo[g]quinoline-2-acetonitrilato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



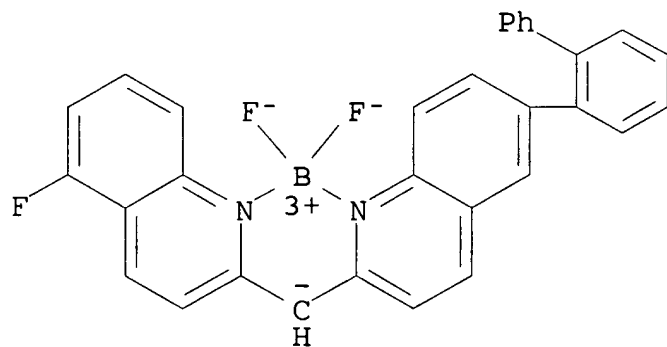
RN 861928-40-7 HCAPLUS

CN Boron, difluoro[4-fluoro-2-[(2-quinolinyl- κ N)methyl]quinolinato- κ N]-, (T-4)- (9CI) (CA INDEX NAME)

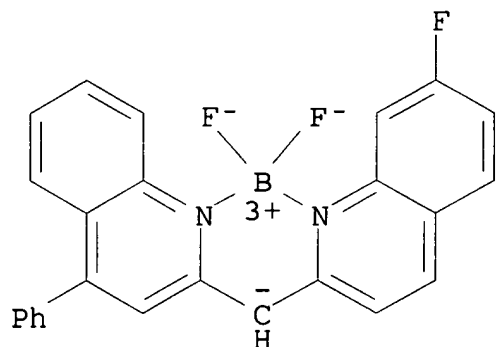


RN 861928-41-8 HCAPLUS

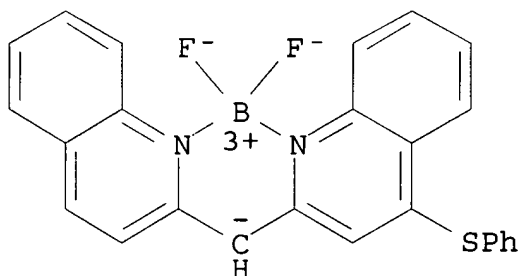
CN Boron, [2-[(6-[1,1'-biphenyl]-2-yl-2-quinolinyl- κ N)methyl]-5-fluoroquinolinato- κ N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 861928-42-9 HCAPLUS

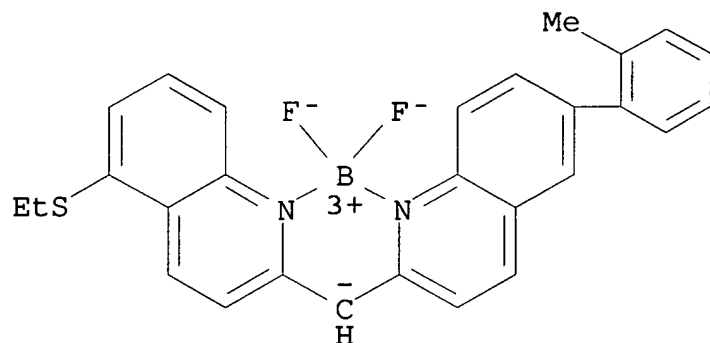
CN Boron, difluoro[2-[(7-fluoro-2-quinolinyl- κ N)methyl]-4-phenylquinolinato- κ N]-, (T-4)- (9CI) (CA INDEX NAME)

RN 861928-43-0 HCAPLUS

CN Boron, difluoro[4-(phenylthio)-2-[(2-quinolinyl- κ N)methyl]quinolinato- κ N]-, (T-4)- (9CI) (CA INDEX NAME)

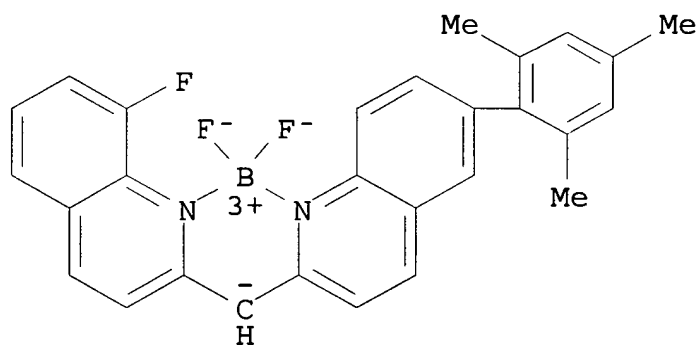
RN 861928-44-1 HCAPLUS

CN Boron, [5-(ethylthio)-2-[[6-(2-methylphenyl)-2-quinolinyl- κ N)methyl]quinolinato- κ N]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



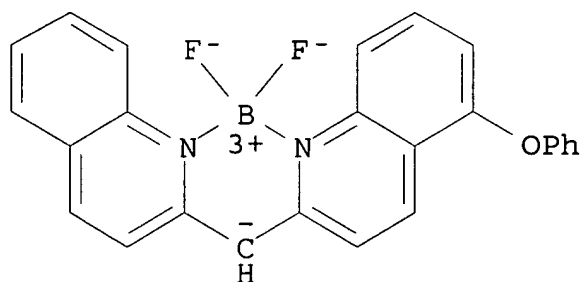
RN 861928-45-2 HCAPLUS

CN Boron, difluoro[2-[(8-fluoro-2-quinolinyl-κN)methyl]-6-(2,4,6-trimethylphenyl)quinolinato-κN]-, (T-4)- (9CI) (CA INDEX NAME)

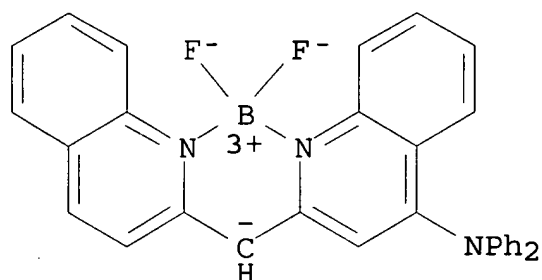


RN 861928-46-3 HCAPLUS

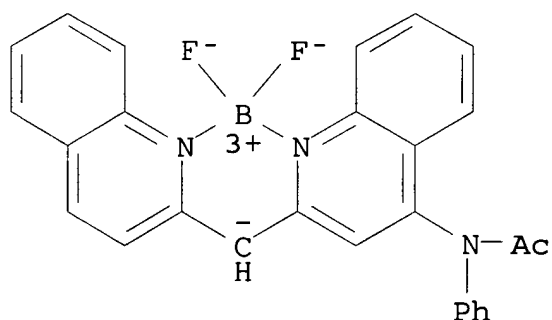
CN Boron, difluoro[5-phenoxy-2-[(2-quinolinyl-κN)methyl]quinolinato-κN]-, (T-4)- (9CI) (CA INDEX NAME)



RN 861928-47-4 HCAPLUS

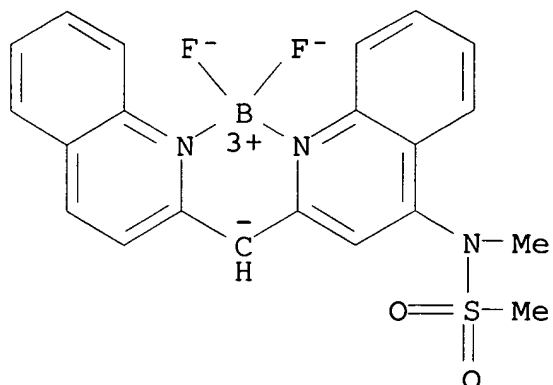
CN Boron, [N,N-diphenyl-2-[(2-quinolinyl- κ N)methyl]-4-quinolinaminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

RN 861928-48-5 HCAPLUS

CN Boron, difluoro[N-phenyl-N-[2-[(2-quinolinyl- κ N)methyl]-4-quinolinyl- κ N]acetamidato]-, (T-4)- (9CI) (CA INDEX NAME)

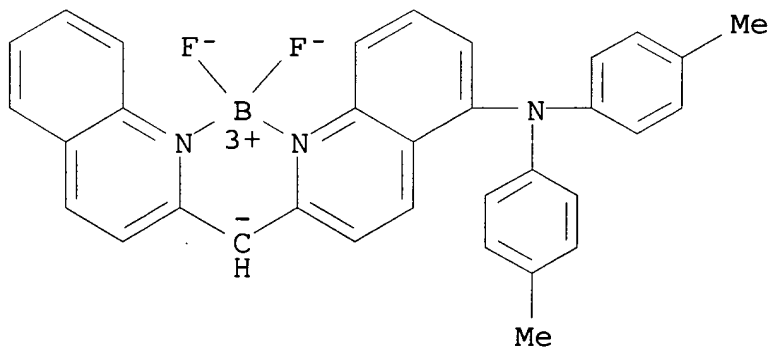
RN 861928-49-6 HCAPLUS

CN Boron, difluoro[N-methyl-N-[2-[(2-quinolinyl- κ N)methyl]-4-quinolinyl- κ N]methanesulfonamidato]-, (T-4)- (9CI) (CA INDEX NAME)



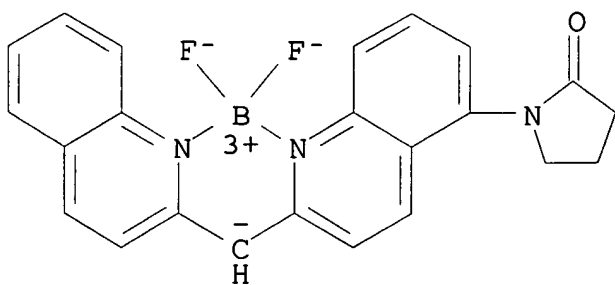
RN 861928-50-9 HCAPLUS

CN Boron, [N,N-bis(4-methylphenyl)-2-[(2-quinolinyl-κN)methyl]-5-quinolinaminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



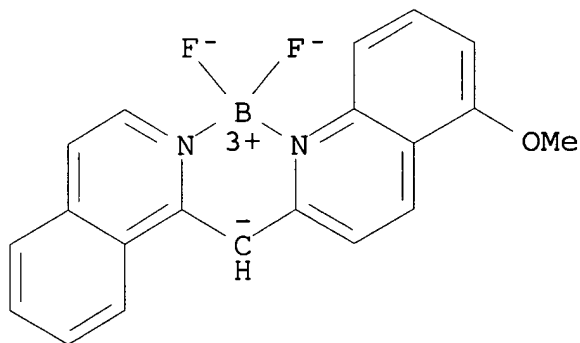
RN 861928-51-0 HCAPLUS

CN Boron, difluoro[1-[2-[(2-quinolinyl-κN)methyl]-5-quinolinyl-κN]-2-pyrrolidinonato]-, (T-4)- (9CI) (CA INDEX NAME)



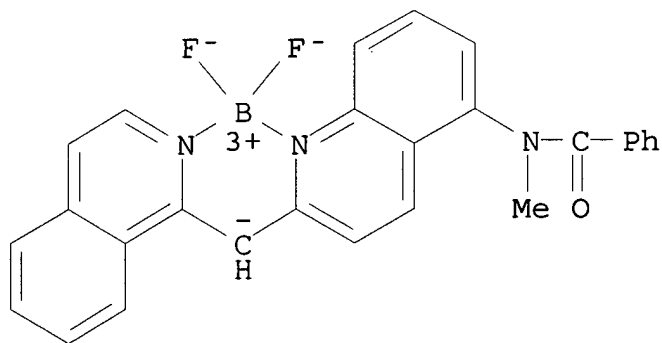
RN 861928-52-1 HCAPLUS

CN Boron, difluoro[2-[(2-isoquinolinyl- κ N)methyl]-5-methoxyquinolinato- κ N]-, (T-4)- (9CI) (CA INDEX NAME)



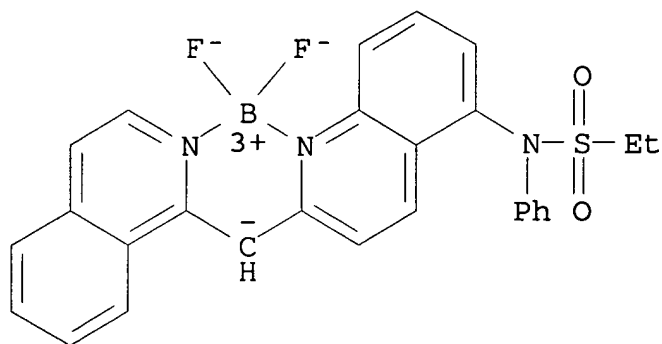
RN 861928-53-2 HCAPLUS

CN Boron, difluoro[N-[2-[(2-isoquinolinyl- κ N)methyl]-5-quinolinyl- κ N]-N-methylbenzamidato]-, (T-4)- (9CI) (CA INDEX NAME)



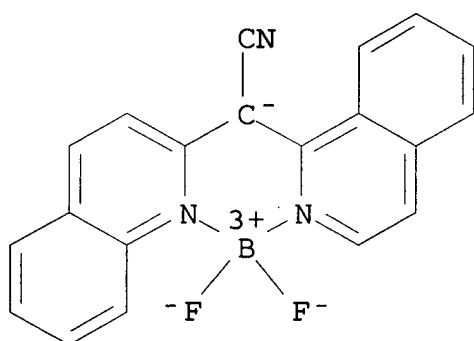
RN 861928-54-3 HCAPLUS

CN Boron, difluoro[N-[2-[(2-isoquinolinyl- κ N)methyl]-5-quinolinyl- κ N]-N-phenylethanesulfonamidato]-, (T-4)- (9CI) (CA INDEX NAME)



RN 861928-55-4 HCAPLUS

CN Boron, difluoro[α -(2-isoquinolinyl- κ N)-2-quinolineacetonitrilato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)

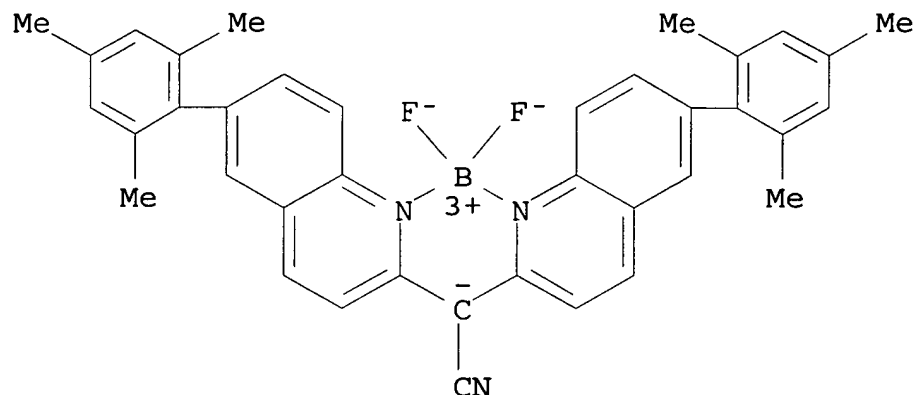


IT 682334-89-0 861928-31-6 861928-34-9

RL: DEV (Device component use); MOA (Modifier or additive use);
PRP (Properties); USES (Uses)
(organic element for electroluminescent devices employing
bis(azinyl)methene boron complex)

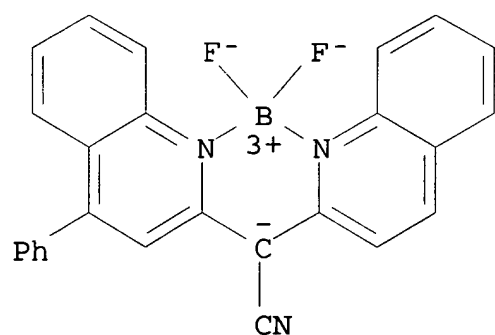
RN 682334-89-0 HCAPLUS

CN Boron, difluoro[6-(2,4,6-trimethylphenyl)- α -[6-(2,4,6-trimethylphenyl)-2-quinolinyl- κ N]-2-quinolineacetonitrilato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



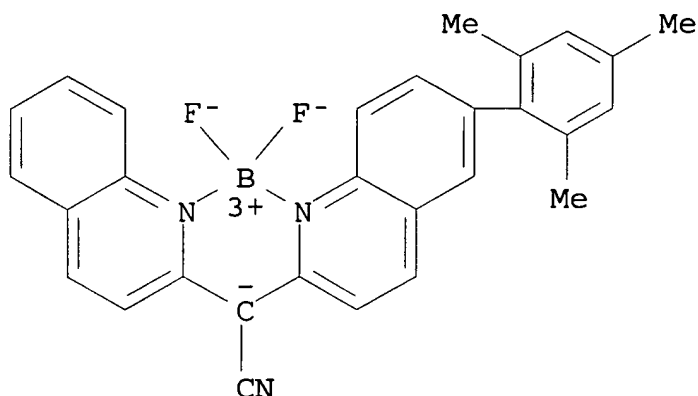
RN 861928-31-6 HCAPLUS

CN Boron, difluoro[4-phenyl- α -(2-quinolinyl- κ N)-2-quinolineacetonitrilato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 861928-34-9 HCAPLUS

CN Boron, difluoro[α -(2-quinolinyl- κ N)-6-(2,4,6-trimethylphenyl)-2-quinolineacetonitrilato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



IT 73681-66-0P

RL: DEV (Device component use); MOA (Modifier or additive use);
PRP (Properties); SPN (Synthetic preparation); PREP

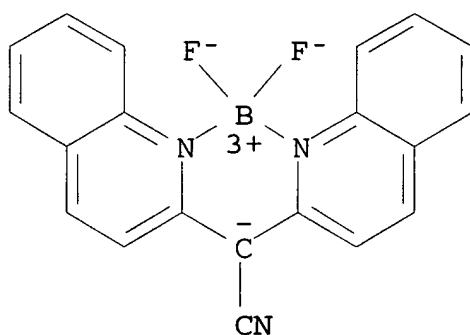
(Preparation);

USES (Uses)

(organic element for electroluminescent devices employing
bis(azinyl)methene boron complex)

RN 73681-66-0 HCAPLUS

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quinolineacetonitrilato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)

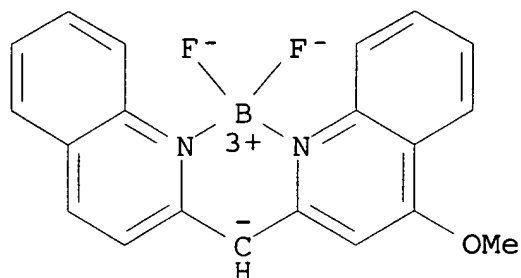


IT 861928-32-7 861928-33-8

RL: DEV (Device component use); PRP (Properties); USES (Uses)
(organic element for electroluminescent devices employing
bis(azinyl)methene boron complex)

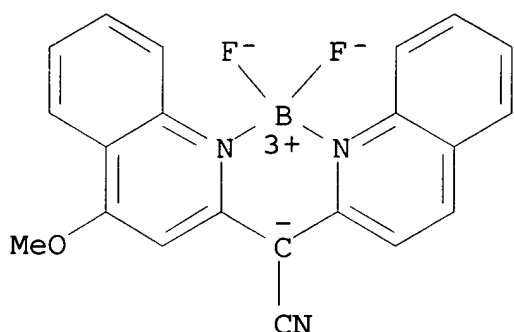
RN 861928-32-7 HCAPLUS

CN Boron, difluoro[4-methoxy-2-[(2-quinolinyl- κ N)methyl]quinolinato- κ N]-, (T-4)- (9CI) (CA INDEX NAME)



RN 861928-33-8 HCAPLUS

CN Boron, difluoro[4-methoxy- α -(2-quinolinyl- κ N)-2-quinolineacetonitrilato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM H05B033-14

ICS C07F005-02; C09K011-06

INCL 428690000; 428917000; 313504000; 313506000; 546013000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 28, 76

IT 861928-35-0 861928-36-1 861928-37-2

861928-38-3 861928-39-4 861928-40-7

861928-41-8 861928-42-9 861928-43-0

861928-44-1 861928-45-2 861928-46-3

861928-47-4 861928-48-5 861928-49-6

861928-50-9 861928-51-0 861928-52-1

861928-53-2 861928-54-3 861928-55-4

RL: DEV (Device component use); USES (Uses)

(organic element for electroluminescent devices employing bis(azinyl)methene boron complex)

IT 682334-89-0 861928-31-6 861928-34-9

RL: DEV (Device component use); MOA (Modifier or additive use);

PRP (Properties); USES (Uses)
(organic element for electroluminescent devices employing
bis(azinyl)methene boron complex)

IT 73681-66-0P

RL: DEV (Device component use); MOA (Modifier or additive use);
PRP (Properties); SPN (Synthetic preparation); PREP

(Preparation);

USES (Uses)
(organic element for electroluminescent devices employing
bis(azinyl)methene boron complex)

IT 861928-32-7 861928-33-8

RL: DEV (Device component use); PRP (Properties); USES (Uses)
(organic element for electroluminescent devices employing
bis(azinyl)methene boron complex)

L36 ANSWER 10 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:588313 HCAPLUS

DOCUMENT NUMBER: 143:122834

TITLE: White OLED devices with color filter arrays

INVENTOR(S): Hatwar, Tukaram K.; Spindler, Jeffrey P.;
Brown, Christopher T.; Ricks, Michele L.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S. Pat. Appl. Publ., 31 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.
DATE	-----	----	-----	-----

	US 2005147844	A1	20050707	US 2004-751352
2004				
0105				
	WO 2005069397	A2	20050728	WO 2004-US43533
2004				
1222				
	WO 2005069397	A3	20060112	
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,			
	CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,			
	ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,			

KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
 MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
 PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
 TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
 CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT,
 LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
 CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2004-751352 A

2004

0105

AB White organic light-emitting devices including a color filter array

including ≥ 3 sep. filters having bandpass spectra for passing red, green, and blue light, resp. in response to white light to produce preselected color outputs disposed over an electroluminescent element with a light-emitting structure including ≥ 2 dopants for collectively emitting white light are described in which the composition of ≥ 1 of the dopants is selected to change the spectrum of the white light to be compatible with the spectrum of the color filters by having peak responses in the white light spectrum corresponding to the bandpass spectra of the red and blue color filters whereby the white light more effectively matches the responses of the color filters.

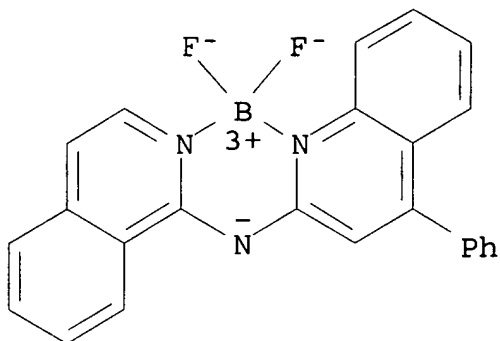
IT 676120-51-7 676120-52-8 676120-53-9
 676120-54-0 676120-55-1 676120-56-2
 676120-57-3

RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)

(white organic light-emitting devices with dopants matched to color filter arrays)

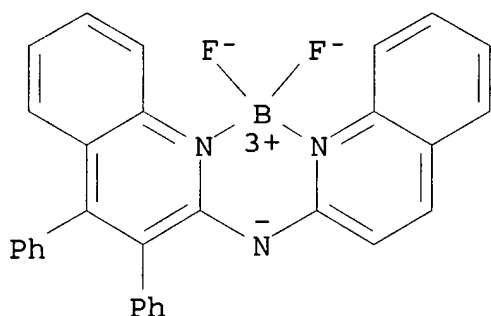
RN 676120-51-7 HCAPLUS

CN Boron, difluoro[N-(1-isoquinolinyl- κ N)-4-phenyl-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



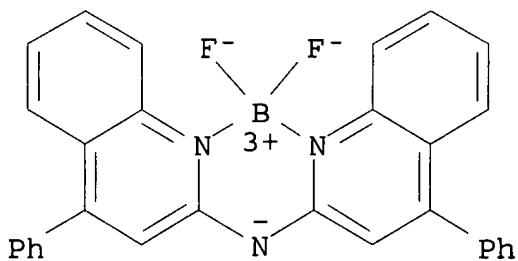
RN 676120-52-8 HCAPLUS

CN Boron, [3,4-diphenyl-N-(2-quinolinyl- κ N)-2-quinolinaminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



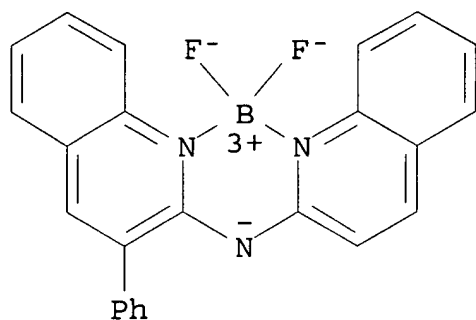
RN 676120-53-9 HCAPLUS

CN Boron, difluoro[4-phenyl-N-(4-phenyl-2-quinolinyl- κ N)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



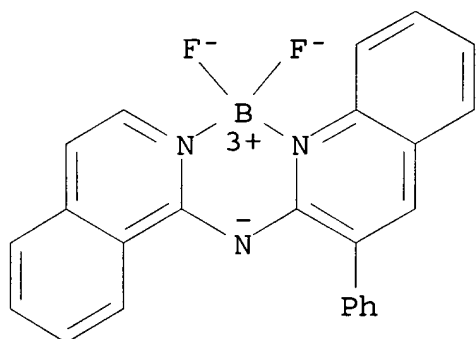
RN 676120-54-0 HCAPLUS

CN Boron, difluoro[3-phenyl-N-(2-quinolinyl- κ N)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



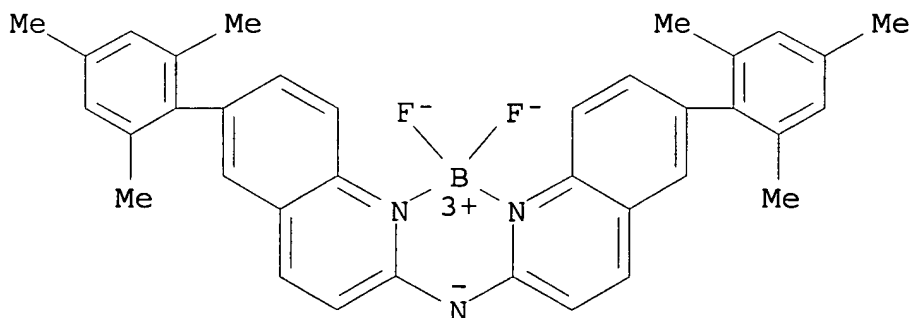
RN 676120-55-1 HCAPLUS

CN Boron, difluoro[N-(1-isoquinolinyl- κ N)-3-phenyl-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)

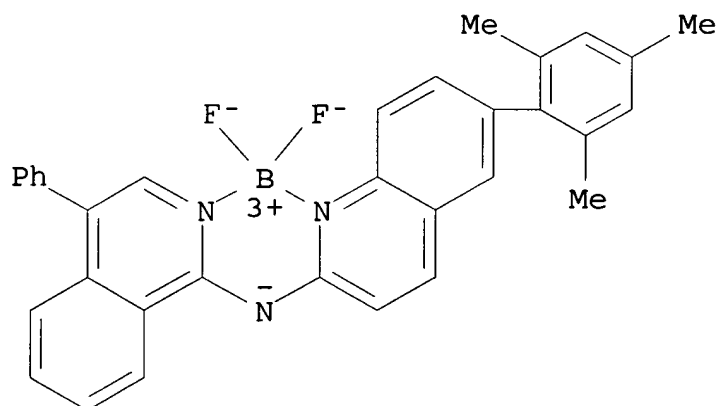


RN 676120-56-2 HCAPLUS

CN Boron, difluoro[6-(2,4,6-trimethylphenyl)-N-[6-(2,4,6-trimethylphenyl)-2-quinolinyl- κ N]-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 676120-57-3 HCAPLUS
CN Boron, difluoro[N-(4-phenyl-1-isoquinolinyl- κ N)-6-(2,4,6-trimethylphenyl)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM H05B033-14
INCL 428690000; 428917000; 313504000; 313506000; 313112000; 257098000
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 76
IT 188-94-3, Diindeno[1,2,3-cd:1',2',3'-lm]perylene 517-51-1,
Rubrene 55035-43-3 222849-28-7 222849-41-4
676120-51-7 676120-52-8 676120-53-9
676120-54-0 676120-55-1 676120-56-2
676120-57-3 857264-90-5D, derivs.
RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)
(white organic light-emitting devices with dopants matched to color filter arrays)

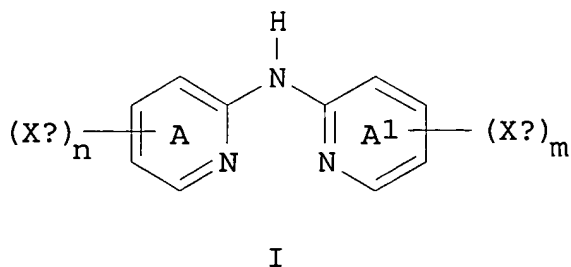
L36 ANSWER 11 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:485595 HCAPLUS
DOCUMENT NUMBER: 143:26722
TITLE: Synthesis of bis(azinyl)amine-BF₂ complex
INVENTOR(S): Owczarczyk, Zbyslaw R.
PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: U.S., 7 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

DATE	PATENT NO.	KIND	DATE	APPLICATION NO.
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2003	US 6903214	B1	20050607	US 2003-733086
1211	US 2005131234	A1	20050616	
	WO 2005061521	A1	20050707	WO 2004-US39869
2004				
1129				
	W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
	RW:			BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
	PRIORITY APPLN. INFO.:			US 2003-733086 A

2003

1211

OTHER SOURCE(S): CASREACT 143:26722; MARPAT 143:26722
GI



AB Disclosed is a process of preparation of title complex I (A, A1 = independent azine ring systems corresponding to 6-membered aromatic

ring systems containing at least one N; Xa, Xb = independently selected substituent, two of which may join to form a fused ring to A or A1; m, n = 0-4), comprising the step of reacting BF₃ with a protonated bis(azinyl)amine in the presence of a polar aprotic organic solvent that is not reactive with the BF₃ under reaction conditions. Such process provides good yields, even when a bulky group is present on the bis(azinyl)amine compound

IT 676120-56-2P 852660-08-3P 852660-09-4P

852660-10-7P 852660-11-8P 852660-12-9P

852660-14-1P 852660-15-2P 852660-16-3P

852660-17-4P 852660-18-5P 852660-19-6P

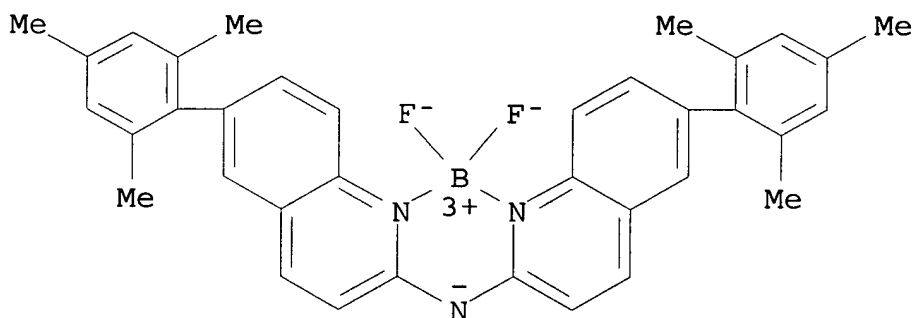
852660-20-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis of bis(azinyl)amine boron difluoride complex via boration with boron trifluoride etherate)

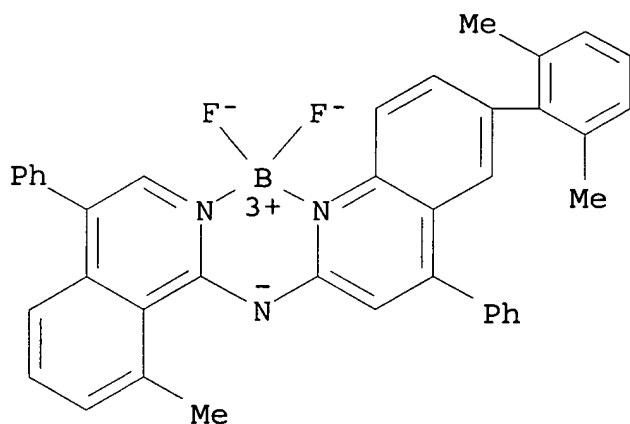
RN 676120-56-2 HCAPLUS

CN Boron, difluoro[6-(2,4,6-trimethylphenyl)-N-[6-(2,4,6-trimethylphenyl)-2-quinolinyl-κN]-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



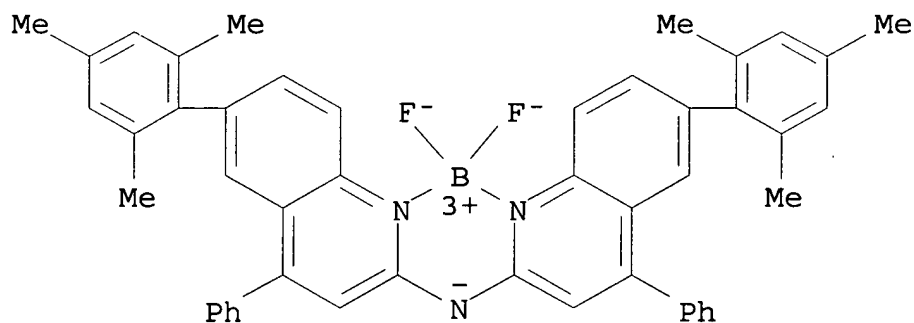
RN 852660-08-3 HCAPLUS

CN Boron, [6-(2,6-dimethylphenyl)-N-(8-methyl-4-phenyl-1-isoquinolinyl-κN)-4-phenyl-2-quinolinaminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



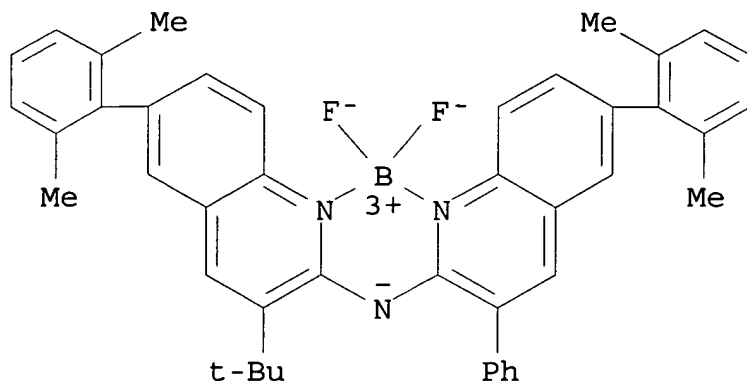
RN 852660-09-4 HCAPLUS

CN Boron, difluoro[4-phenyl-N-[4-phenyl-6-(2,4,6-trimethylphenyl)-2-quinolinyl- κ N]-6-(2,4,6-trimethylphenyl)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



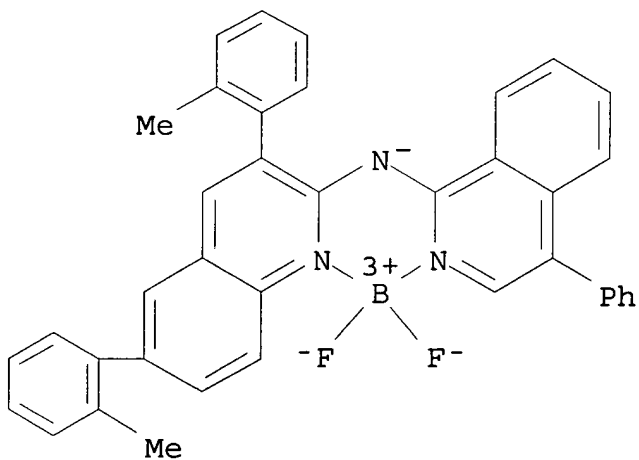
RN 852660-10-7 HCAPLUS

CN Boron, [3-(1,1-dimethylethyl)-6-(2,6-dimethylphenyl)-N-[6-(2,6-dimethylphenyl)-3-phenyl-2-quinolinyl- κ N]-2-quinolinaminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



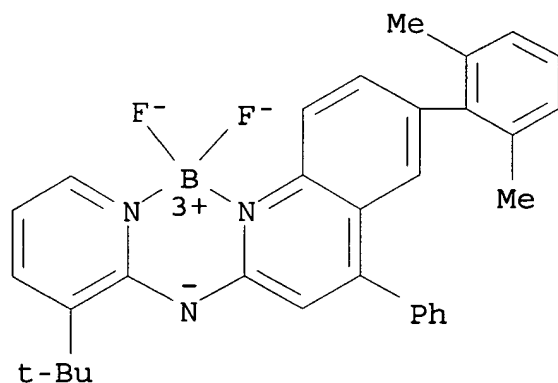
RN 852660-11-8 HCAPLUS

CN Boron, [3,6-bis(2-methylphenyl)-N-(4-phenyl-1-isoquinolinyl- κ N)-2-quinolinaminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



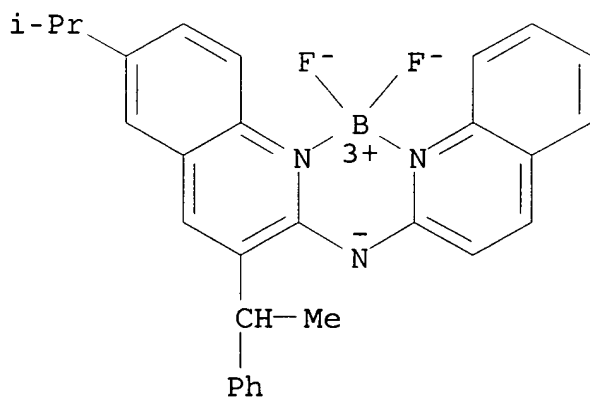
RN 852660-12-9 HCAPLUS

CN Boron, [N-[3-(1,1-dimethylethyl)-2-pyridinyl- κ N]-6-(2,6-dimethylphenyl)-4-phenyl-2-quinolinaminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



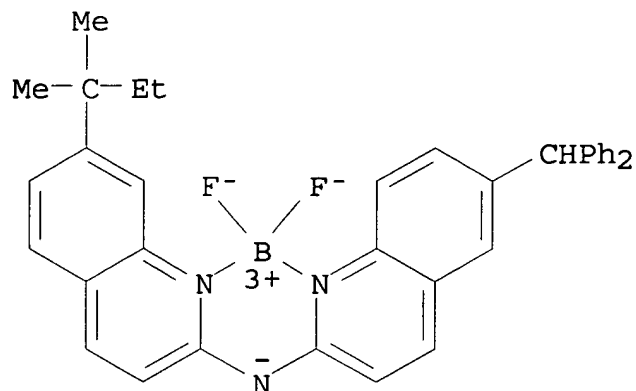
RN 852660-14-1 HCAPLUS

CN Boron, difluoro[6-(1-methylethyl)-3-(1-phenylethyl)-N-(2-quinolinyl-κN)-2-quinolinaminato-κN1]-, (T-4)- (9CI)
(CA INDEX NAME)



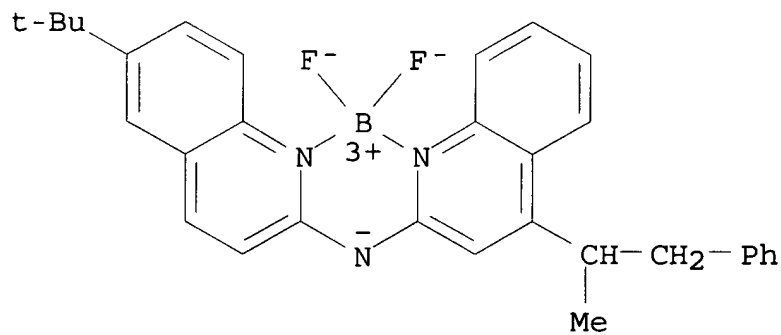
RN 852660-15-2 HCAPLUS

CN Boron, [N-[7-(1,1-dimethylpropyl)-2-quinolinyl-κN]-6-(diphenylmethyl)-2-quinolinaminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



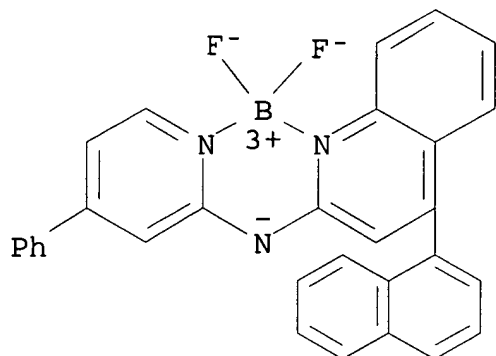
RN 852660-16-3 HCAPLUS

CN Boron, [N- [6- (1,1-dimethylethyl) -2-quinolinyl-κN] -4- (1-methyl-2-phenylethyl) -2-quinolinaminato-κN1]difluoro-, (T-4) - (9CI) (CA INDEX NAME)



RN 852660-17-4 HCAPLUS

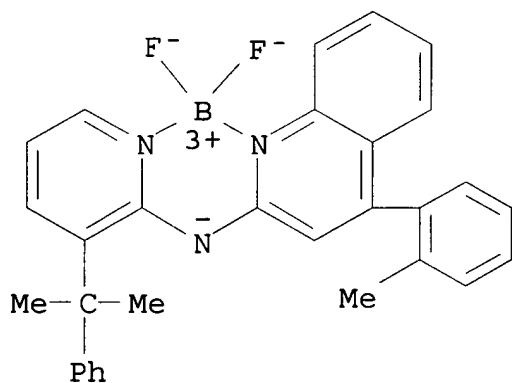
CN Boron, difluoro[4- (1-naphthalenyl) -N- (4-phenyl-2-pyridinyl-κN) -2-quinolinaminato-κN1]-, (T-4) - (9CI) (CA INDEX NAME)



RN 852660-18-5 HCAPLUS

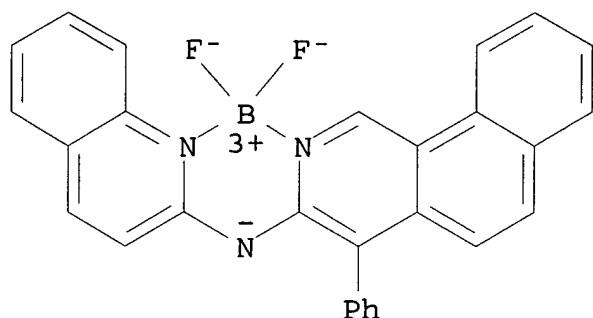
CN Boron,

difluoro[4-(2-methylphenyl)-N-[3-(1-methyl-1-phenylethyl)-2-pyridinyl- κ N]-2-quinolinaminato- κ N1]-, (T-4)- (9CI)
(CA INDEX NAME)



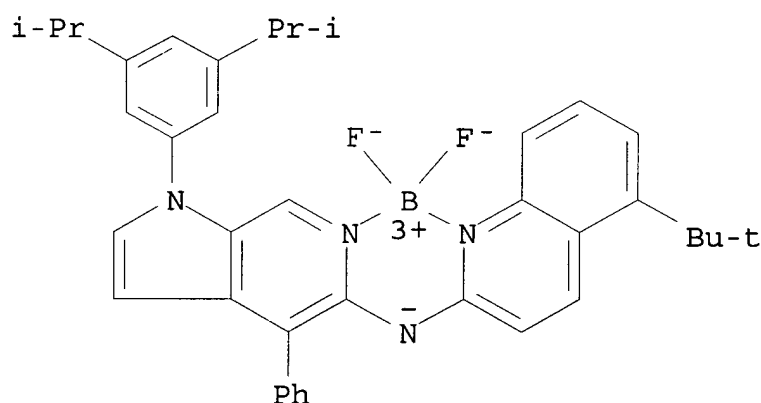
RN 852660-19-6 HCAPLUS

CN Boron, difluoro[4-phenyl-N-(2-quinolinyl- κ N)benz[h]isoquinolin-3-aminato- κ N2]-, (T-4)- (9CI)
(CA INDEX NAME)



RN 852660-20-9 HCAPLUS

CN Boron, [N-[1-[3,5-bis(1-methylethyl)phenyl]-4-phenyl-1H-pyrrolo[2,3-c]pyridin-5-yl-κN6]-5-(1,1-dimethylethyl)-2-quinolinaminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM C07F005-02

INCL 546013000

CC 29-4 (Organometallic and Organometalloidal Compounds)

IT 676120-56-2P 852660-08-3P 852660-09-4P

852660-10-7P 852660-11-8P 852660-12-9P

852660-14-1P 852660-15-2P 852660-16-3P

852660-17-4P 852660-18-5P 852660-19-6P

852660-20-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis of bis(azinyl)amine boron difluoride complex via
boration with boron trifluoride etherate)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS

AVAILABLE

IN THE RE FORMAT

L36 ANSWER 12 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:395413 HCAPLUS
DOCUMENT NUMBER: 142:438402
TITLE: Aggregate organic light emitting diode
devices
INVENTOR(S): Jarikov, Viktor Viktorovich; Vargas, J. Ramon
PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: PCT Int. Appl., 161 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
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WO 2005040303	A1	20050506	WO 2004-US33605

2004

1012

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG,
ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH,
CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI,
CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
US 2005106415 A1 20050519 US 2003-691326

2003

1022

PRIORITY APPLN. INFO.: US 2003-691326 A

2003

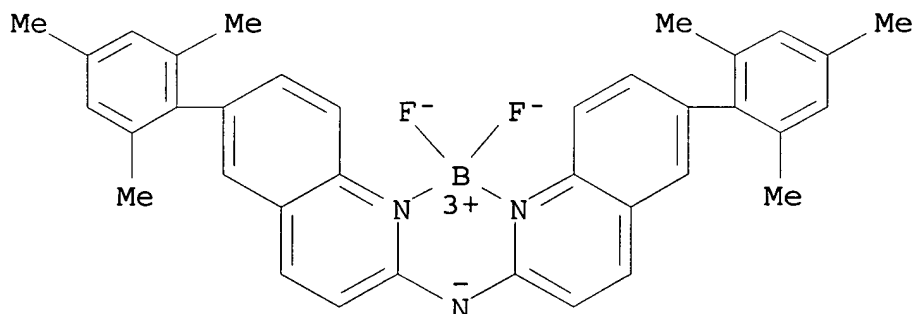
1022

AB An organic light emitting device includes a substrate, an anode and a cathode disposed over the substrate, and a luminescent layer disposed between the anode and the cathode wherein the luminescent layer includes a host and at least one dopant. The host of the luminescent layer is selected to include a solid organic material comprising a mixture of at least two components, one of which contains at least one perylene carbocyclic ring structure or at least one monoaza-perylene or poly-aza-perylene ring structure and is capable of forming both monomer state and an aggregate state.

IT **676120-56-2**
 RL: DEV (Device component use); USES (Uses)
 (aggregate organic light emitting diode devices with perlene derivative)

RN 676120-56-2 HCAPLUS

CN Boron, difluoro[6-(2,4,6-trimethylphenyl)-N-[6-(2,4,6-trimethylphenyl)-2-quinolinyl-κN]-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM C09K011-06
 ICS H01L051-30; C07C013-00; C07C015-00

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 126-73-8, TBP, uses 188-96-5, Peropyrene 191-07-1, Coronene 191-24-2, Benzo[ghi]perylene 198-55-0, Perylene 517-51-1, Rubrene 2085-33-8, Aluminum tris(8-hydroxyquinolinato) 5869-30-7, Dibenzo[b,ghi]perylene 55035-43-3, 4-(Di-p-tolylamino)-4'-[(di-p-tolylamino)styryl]stilbene 80663-92-9, 2,5,8,11-Tetra-tert-butylperylene 101686-49-1, Indeno[1,2,3-cd]perylene 274905-73-6 478799-44-9

676120-56-2
 RL: DEV (Device component use); USES (Uses)
 (aggregate organic light emitting diode devices with perlene

derivative)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS
AVAILABLE
IN THE RE FORMAT

L36 ANSWER 13 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:382425 HCAPLUS

DOCUMENT NUMBER: 144:83111

TITLE: A potent nonporphyrin class of photodynamic
therapeutic agent: cellular localization,
cytotoxic potential and influence of hypoxia
AUTHOR(S): Gallagher, W. M.; Allen, L. T.; O'Shea, C.;
Kenna, T.; Hall, M.; Gorman, A.; Killoran,
J.;

O'Shea, D. F.
CORPORATE SOURCE: Department of Pharmacology, Centre for
Synthesis and Chemical Biology, Conway
Institute of Biomolecular and Biomedical
Research, University College Dublin,
Belfield,
Dublin, Ire.

SOURCE: British Journal of Cancer (2005), 92(9),
1702-1710

CODEN: BJCAAI; ISSN: 0007-0920
PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We have developed a totally new class of nonporphyrin
photodynamic

therapeutic agents with a specific focus on two lead candidates
azadipyrromethene ADPM01 and ADPM06. Confocal laser scanning
microscopy imaging showed that these compds. are exclusively
localized to the cytosolic compartment, with specific
accumulation

in the endoplasmic reticulum and to a lesser extent in the
mitochondria. Light-induced toxicity assays, carried out over a
broad range of human tumor cell lines, displayed EC50 values in
the micro-molar range for ADPM01 and nano-molar range for ADPM06,
with no discernable activity bias for a specific cell type.
Strikingly, the more active agent, ADPM06, even retained
significant activity under hypoxic conditions. Both
photosensitizers showed low to nondeterminable dark toxicity.
Flow cytometric anal. revealed that ADPM01 and ADPM06 were highly
effective at inducing apoptosis as a mode of cell death. The
photophys. and biol. characteristics of these PDT agents suggest
that they have potential for the development of new anticancer

therapeutics.

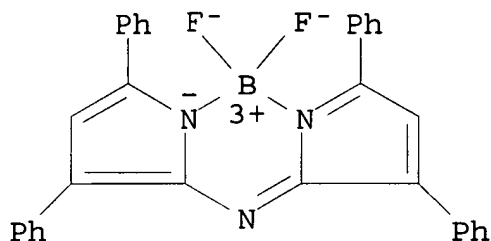
IT 154827-68-6 490035-90-0

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(effect of nonporphyrin class of photodynamic therapeutic agents on cellular localization, uptake and clearance, cytotoxic potential, and hypoxia)

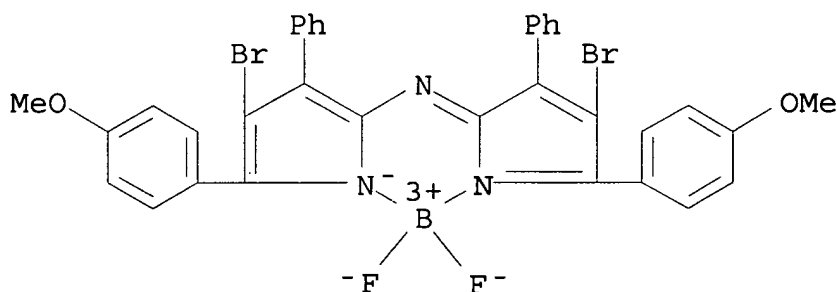
RN 154827-68-6 HCAPLUS

CN Boron, [N-(3,5-diphenyl-2H-pyrrol-2-ylidene-κN)-3,5-diphenyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 490035-90-0 HCAPLUS

CN Boron, [4-bromo-N-[4-bromo-5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene-κN]-5-(4-methoxyphenyl)-3-phenyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



CC 8-9 (Radiation Biochemistry)

IT 154827-68-6 490035-90-0

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(effect of nonporphyrin class of photodynamic therapeutic

agents on cellular localization, uptake and clearance,
cytotoxic potential, and hypoxia)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS
AVAILABLE

IN THE RE FORMAT

L36 ANSWER 14 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:251817 HCAPLUS

DOCUMENT NUMBER: 142:448271

TITLE: Conformationally restricted aza-bodipy: A
highly fluorescent, stable,
near-infrared-absorbing dye

AUTHOR(S): Zhao, Weili; Carreira, Erick M.

CORPORATE SOURCE: Laboratorium fuer Organische Chemie, ETH
Hoenggerberg, Zurich, 8093, Switz.

SOURCE: Angewandte Chemie, International Edition
(2005), 44(11), 1677-1679

CODEN: ACIEF5; ISSN: 1433-7851

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:448271

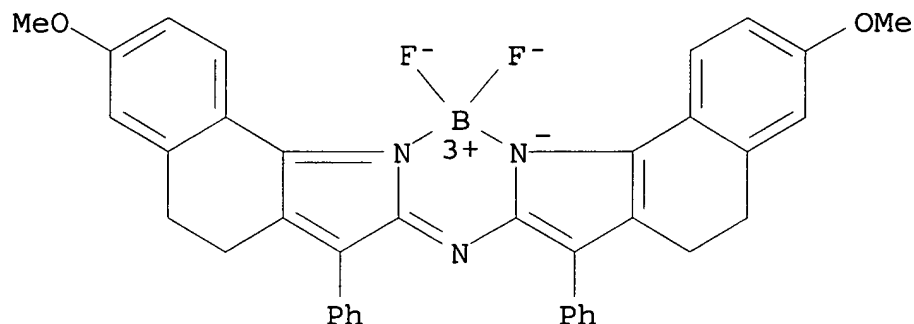
AB A highly fluorescent, photostable aza-dipyrromethene dye
(λ_{em} = 751 nm) with sharp and intense absorption (full
width at half maximum height = 30.4 nm; ϵ = 159,000) in the
near-IR (NIR) region (λ_{max} = 740 nm) is reported. The dye
is insensitive to solvent polarity, meets the requirements of a
NIR chromophore, and has potential use in biol. probes.

IT 851366-69-3P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical
or engineered material use); PREP (Preparation); USES (Uses)
(dye; conformationally restricted aza-bodipy fluorescent,
near-IR-absorbing dye)

RN 851366-69-3 HCAPLUS

CN Boron, [N-(4,5-dihydro-7-methoxy-3-phenyl-2H-benz[g]indol-2-
ylidene- κ N)-4,5-dihydro-7-methoxy-3-phenyl-1H-benz[g]indol-2-
aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 73, 78

IT **851366-69-3P**

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; conformationally restricted aza-bodipy fluorescent, near-IR-absorbing dye)

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L36 ANSWER 15 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:876847 HCAPLUS

DOCUMENT NUMBER: 141:372762

TITLE: Negative-working photosensitive composition containing boron anion salt light absorbing dye

INVENTOR(S): Urano, Toshiyoshi

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
JP 2004295058	A2	20041021	JP 2003-126253

2003

0501

PRIORITY APPLN. INFO.:

JP 2003-36717

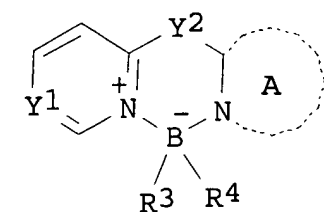
A

2003

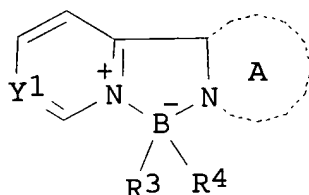
0214

OTHER SOURCE(S):
GI

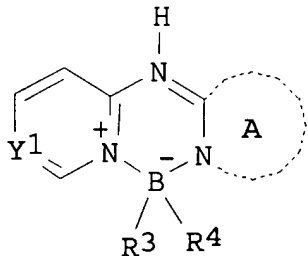
MARPAT 141:372762



I



III

X⁻

II

AB Disclosed is the neg.-working photosensitive composition containing a salt of B- with a pyrimidine cation or a pyridine cation as a light absorbing dye. The dye may be represented by I, II, or III (Y1,2 = methine, N; R3,4 = halo, alkyl, aryl, etc.; A = C3-9 heterocyclyl, cationic salt thereof, pyridine ring, pyrimidine ring; and X- = counter ion). The composition exhibited high sensitivity in a blue-to-purple region, and is used for a resist, a photoresist, a color proof, and a lithog. printing plate.

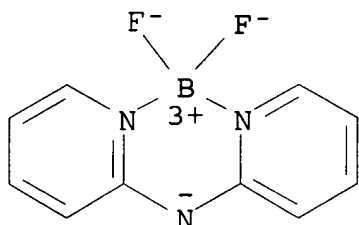
IT 593245-99-9 779345-66-3 779345-68-5

RL: NUU (Other use, unclassified); USES (Uses)

(neg.-working photosensitive composition containing boron anion salt

light absorbing dye)

RN 593245-99-9 HCAPLUS

CN Boron, difluoro[N-(2-pyridinyl- κ N)-2-pyridinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)

RN 779345-66-3 HCAPLUS

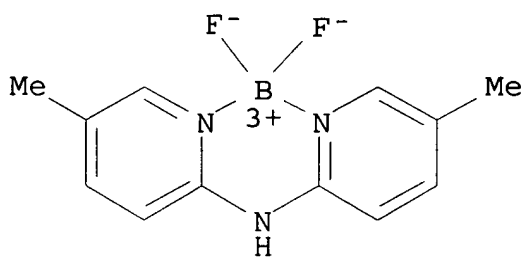
CN Boron(1+), difluoro[5-methyl-N-(5-methyl-2-pyridinyl- κ N)-2-pyridinamine- κ N1]-, (T-4)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 779345-65-2

CMF C12 H13 B F2 N3

CCI CCS

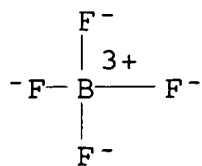


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



RN 779345-68-5 HCAPLUS

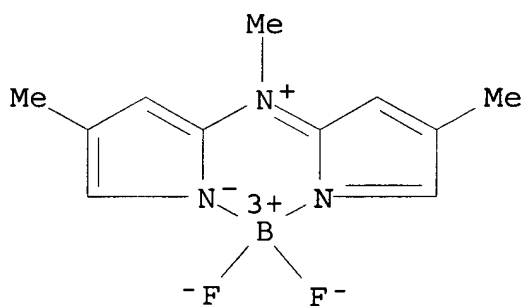
CN Boron(1+), [N,4-dimethyl-N-(4-methyl-2H-pyrrol-2-ylidene-κN)-
1H-pyrrol-2-aminiumato-κN1]difluoro-, (T-4)-,
tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 779345-67-4

CMF C11 H13 B F2 N3

CCI CCS

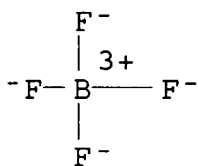


CM 2

CRN 14874-70-5

CMF B F4

CCI CCS



IC ICM G03F007-029

ICS G03F007-004; G03F007-038; G03F007-039; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 41
IT 42029-62-9 **593245-99-9** 779345-64-1 **779345-66-3**
779345-68-5 779345-70-9
RL: NUU (Other use, unclassified); USES (Uses)
(neg.-working photosensitive composition containing boron
anion salt
light absorbing dye)

L36 ANSWER 16 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:641070 HCAPLUS
DOCUMENT NUMBER: 141:309709
TITLE: In Vitro Demonstration of the Heavy-Atom
Effect for Photodynamic Therapy
AUTHOR(S): Gorman, Aoife; Killoran, John; O'Shea,
Caroline; Kenna, Tony; Gallagher, William M.;
O'Shea, Donal F.
CORPORATE SOURCE: Centre for Synthesis and Chemical Biology,
Conway Institute of Biomolecular and
Biomedical Research, University College
Dublin, Belfield, Ire.
SOURCE: Journal of the American Chemical Society
(2004), 126(34), 10619-10631
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:309709
AB Photodynamic therapy (PDT) is an emerging treatment modality for
a
range of disease classes, both cancerous and noncancerous. This
has brought about an active pursuit of new PDT agents that can be
optimized for the unique set of photophys. characteristics that
are required for a successful clin. agent. We now describe a
totally new class of PDT agent, the BF₂-chelated
3,5-diaryl-1H-pyrrol-2-yl-3,5-diarylpyrrol-2-ylideneamines
(tetraarylazadipyrromethenes). Optimized synthetic procedures
have been developed to facilitate the generation of an array of
specifically substituted derivs. to demonstrate how control of
key
therapeutic parameters such as wavelength of maximum absorbance
and
singlet-oxygen generation can be achieved. Photosensitizer
absorption maxima can be varied within the body's therapeutic
window between 650 and 700 nm, with high extinction coeffs.

ranging from 75 000 to 85 000 M⁻¹ cm⁻¹. Photosensitizer singlet-oxygen generation level was modulated by the exploitation of the heavy-atom effect. An array of photosensitizers with and without bromine atom substituents gave rise to a series of compds.

with varying singlet-oxygen generation profiles. X-ray structural

evidence indicates that the substitution of the bromine atoms has not caused a planarity distortion of the photosensitizer.

Comparative singlet-oxygen production levels of each photosensitizer

vs. two stds. demonstrated a modulating effect on singlet-oxygen generation depending upon substituent patterns about the photosensitizer. Confocal laser scanning microscopy imaging of 18a in HeLa cervical carcinoma cells proved that the photosensitizer was exclusively localized to the cellular cytoplasm. In vitro light-induced toxicity assays in HeLa cervical carcinoma and MRC5-SV40 transformed fibroblast cancer cell lines confirmed that the heavy-atom effect is viable in a live cellular system and that it can be exploited to modulate assay efficacy. Direct comparison of the efficacy of the photosensitizers 18b and 19b, which only differ in mol. structure by the presence of two bromine atoms, illustrated an increase in efficacy of more than a 1000-fold in both cell lines. All photosensitizers have very low to nondeterminable dark toxicity

in

our assay system.

IT **154827-68-6P**

RL: PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);

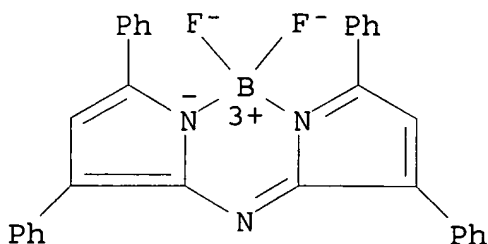
PREP

(Preparation); USES (Uses)

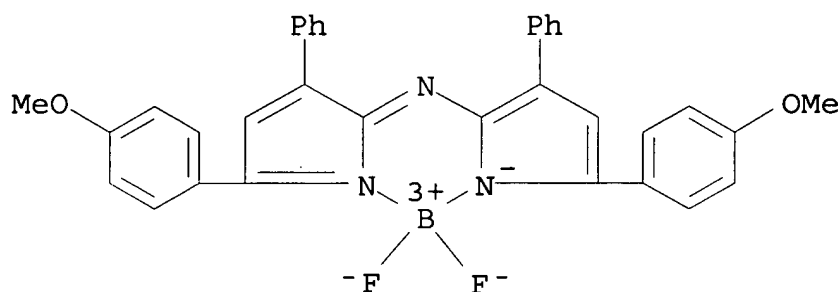
(PDT photosensitizers preparation and heavy-atom effect)

RN 154827-68-6 HCAPLUS

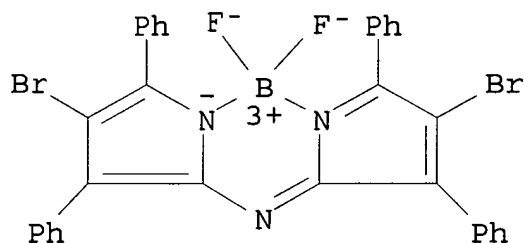
CN Boron, [N-(3,5-diphenyl-2H-pyrrol-2-ylidene-κN)-3,5-diphenyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



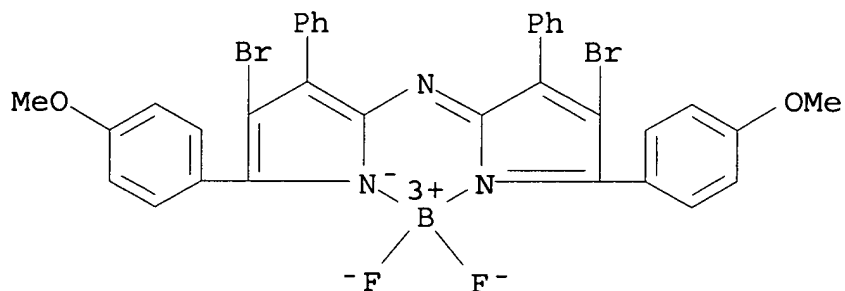
IT 490035-88-6P 490035-89-7P 490035-90-0P
 603105-62-0P 769171-50-8P 769171-51-9P
 RL: PRP (Properties); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation);
 USES (Uses)
 (PDT photosensitizers preparation and heavy-atom effect)
 RN 490035-88-6 HCAPLUS
 CN Boron, difluoro[5-(4-methoxyphenyl)-N-[5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene-κN]-3-phenyl-1H-pyrrol-2-aminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 490035-89-7 HCAPLUS
 CN Boron, [4-bromo-N-(4-bromo-3,5-diphenyl-2H-pyrrol-2-ylidene-κN)-3,5-diphenyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



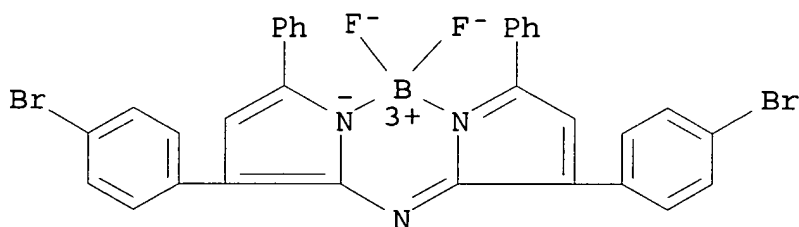
RN 490035-90-0 HCAPLUS
 CN Boron, [4-bromo-N-[4-bromo-5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene-κN]-5-(4-methoxyphenyl)-3-phenyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 603105-62-0 HCAPLUS

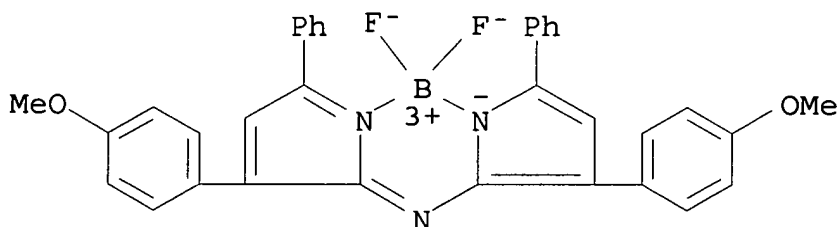
CN Boron,

[3-(4-bromophenyl)-N-[3-(4-bromophenyl)-5-phenyl-2H-pyrrol-2-ylidene-κN]-5-phenyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 769171-50-8 HCAPLUS

CN Boron, difluoro[3-(4-methoxyphenyl)-N-[3-(4-methoxyphenyl)-5-phenyl-2H-pyrrol-2-ylidene-κN]-5-phenyl-1H-pyrrol-2-aminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)

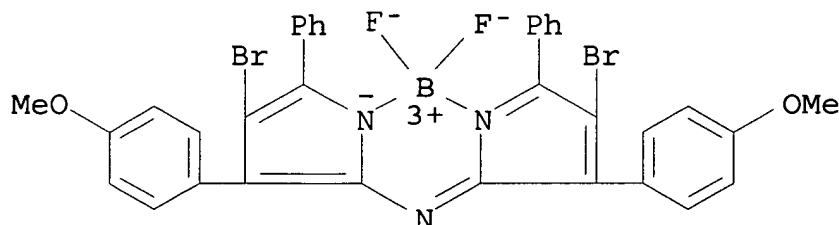


RN 769171-51-9 HCAPLUS

CN Boron,

[4-bromo-N-[4-bromo-3-(4-methoxyphenyl)-5-phenyl-2H-pyrrol-2-ylidene-κN]-3-(4-methoxyphenyl)-5-phenyl-1H-pyrrol-2-

aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



CC 8-9 (Radiation Biochemistry)

IT 154827-68-6P

RL: PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);

PREP

(Preparation); USES (Uses)

(PDT photosensitizers preparation and heavy-atom effect)

IT 490035-88-6P 490035-89-7P 490035-90-0P

603105-62-0P 769171-50-8P 769171-51-9P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(PDT photosensitizers preparation and heavy-atom effect)

REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS

AVAILABLE

IN THE RE FORMAT

L36 ANSWER 17 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:331637 HCAPLUS

DOCUMENT NUMBER: 140:365374

TITLE: Organic light-emitting diode devices with improved operational stability

INVENTOR(S): Jarikov, Viktor V.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S. Pat. Appl. Publ., 108 pp., Cont.-in-part of U.S. Ser. No. 131,801, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
DATE			

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US 2004076853	A1	20040422	US 2003-634324

2003

0805

JP 2003347058	A2	20031205	JP 2003-118497
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2003

0423

CN 1453886	A	20031105	CN 2003-124026
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2003

0424

PRIORITY APPLN. INFO.:

US 2002-131801

B2

2002

0424

OTHER SOURCE(S): MARPAT 140:365374

AB Organic light-emitting devices which comprise a substrate; an anode

and a cathode disposed over the substrate; a luminescent layer disposed between the anode and the cathode are described in which the luminescent layer includes a host and ≥ 1 dopant; the host including a solid organic material comprising a mixture of ≥ 2 components including a first component that is an organic compound capable of transporting either electrons and/or holes

and

of forming both monomer state and an aggregate state and a second component of that is an organic compound that upon mixing with

the

first host component is capable of forming a continuous and substantially pin-hole-free layer, while the dopant of is

selected

to produce light from the light-emitting device. The first component is capable of forming an aggregate state either in the ground electronic state or in an excited electronic state that results in a different absorption or emission spectrum or both relative to the absorption or emission spectrum or both of the monomer state, resp., or of forming an aggregate state whose presence results in a quantum yield of luminescence of the

monomer

state being different relative to the quantum yield of luminescence of the monomer state in the absence of the aggregate state. The aggregate state may be crystalline

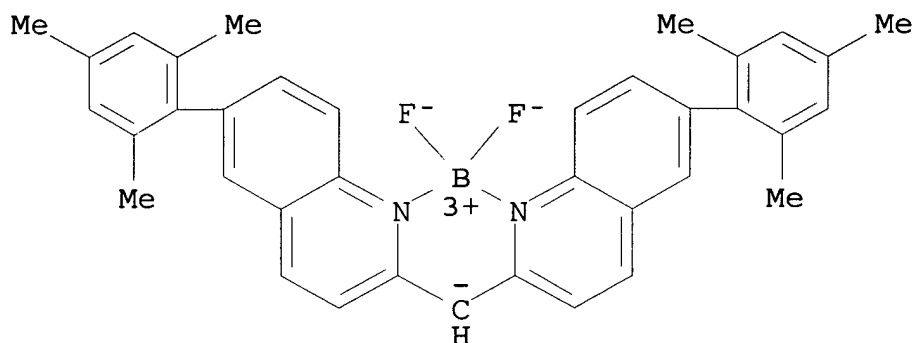
IT **682334-88-9**, DPMB 1

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(DPMB 1; organic light-emitting diode devices using luminescent mixts.)

RN 682334-88-9 HCAPLUS

CN Boron, difluoro[[2,2'-methylenebis[6-(2,4,6-trimethylphenyl)quinolinato- κ N]](1-)]-, (T-4)- (9CI) (CA INDEX NAME)



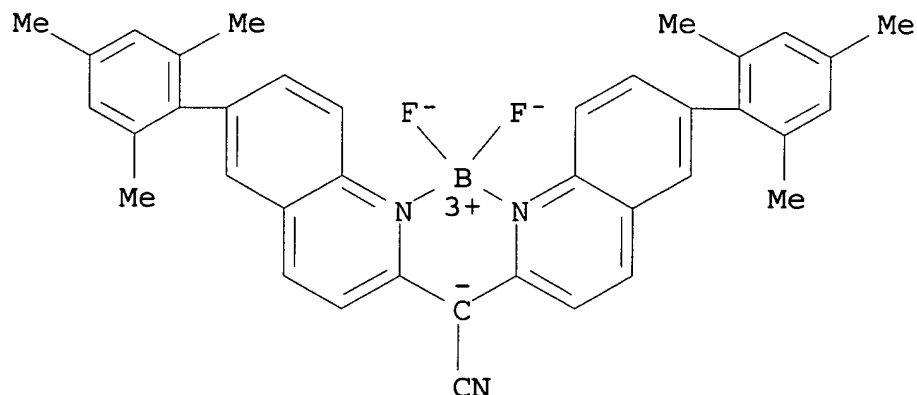
IT **682334-89-0**, DPMB 2

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(DPMB 2; organic light-emitting diode devices using luminescent mixts.)

RN 682334-89-0 HCAPLUS

CN Boron, difluoro[6-(2,4,6-trimethylphenyl)- α -[6-(2,4,6-trimethylphenyl)-2-quinolinyl- κ N]-2-quinolineacetonitrilato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



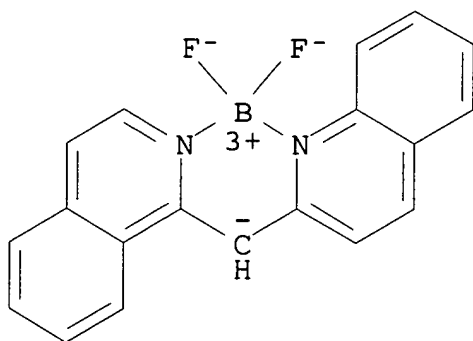
IT 682334-90-3, DPMB 3

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(DPMB 3; organic light-emitting diode devices using
luminescent
mixts.)

RN 682334-90-3 HCAPLUS

CN Boron, difluoro[2-[(1-isoquinolinyl-κN)methyl]quinolinato-
κN]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM H05B033-14

INCL 428690000; 428917000; 313504000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related
Properties)

Section cross-reference(s): 25, 27, 28, 76

IT 682334-88-9, DPMB 1

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(DPMB 1; organic light-emitting diode devices using
luminescent

mixts.)
IT 682334-89-0, DPMB 2
RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)
(DPMB 2; organic light-emitting diode devices using
luminescent
mixts.)
IT 682334-90-3, DPMB 3
RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)
(DPMB 3; organic light-emitting diode devices using
luminescent
mixts.)

L36 ANSWER 18 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:252040 HCAPLUS
DOCUMENT NUMBER: 140:311689
TITLE: White organic light-emitting devices with
improved performance
INVENTOR(S): Hatwar, Tukaram K.
PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: U.S. Pat. Appl. Publ., 34 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

DATE	PATENT NO.	KIND	DATE	APPLICATION NO.
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2002	US 2004058193	A1	20040325	US 2002-244314
0916				
2003	JP 2004134396	A2	20040430	JP 2003-323021
0916				
2003	CN 1496208	A	20040512	CN 2003-158687
0916				

PRIORITY APPLN. INFO.:

US 2002-244314

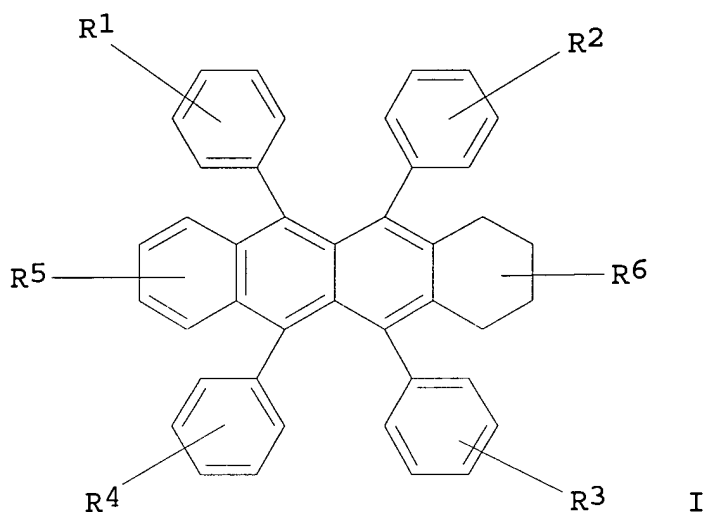
A

2002

0916

OTHER SOURCE(S):
GI

MARPAT 140:311689



AB An white-light organic light-emitting diode (OLED) device is described comprising, in order, an anode; a hole-transporting layer; a doped blue light-emitting layer; an electron-transporting layer a cathode; and the hole-transporting layer and/or electron-transporting layer, selectively doped with the compound of general formula I which emits light in the yellow region of the spectrum which corresponds to an entire layer or a partial portion of a layer in contact with the blue light-emitting layer; wherein R1-R6 represent one or more substituents on each ring where each substituent is individually selected from (1)H, or alkyl C1-C24; (2) (substituted)aryl of C5-C20; (3)C4-C24 necessary to complete a fused aromatic ring of naphthyl, anthracenyl, phenanthryl, pyrenyl, or perylenyl; (4)heteroaryl or substituted heteroaryl of C5-C24 such as thiazolyl, furyl, thienyl, pyridyl, quinolinyl or other

heterocyclic systems, which may be bonded via a single bond, or may complete a fused heteroarom. ring system; (5)alkoxylamino, alkylamino, or arylamino of C1-C24; or (6) fluorine, chlorine, bromine or cyano, except R5 and R6 do not form a fused ring, and at least one of the substituents R1, R2, R3, and R4 are substituted with a group other than H.

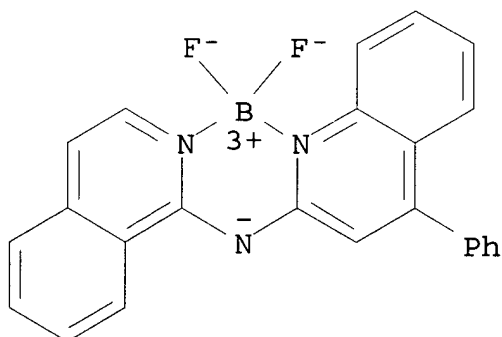
IT 676120-51-7 676120-52-8 676120-53-9
676120-54-0 676120-55-1 676120-56-2
676120-57-3

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(blue emitting dopant; white organic light-emitting devices
using super rubrenes organic yellow emitting material with improved
performance)

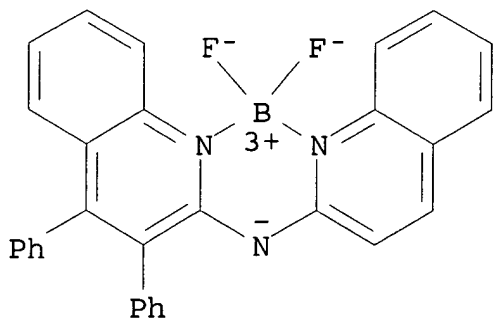
RN 676120-51-7 HCAPLUS

CN Boron, difluoro[N-(1-isoquinolinyl-κN)-4-phenyl-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)

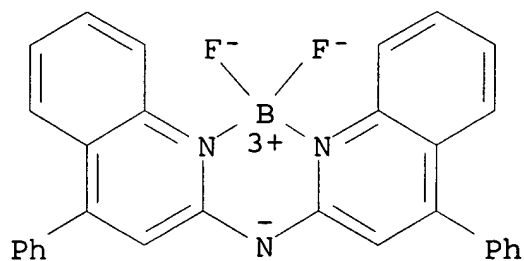


RN 676120-52-8 HCAPLUS

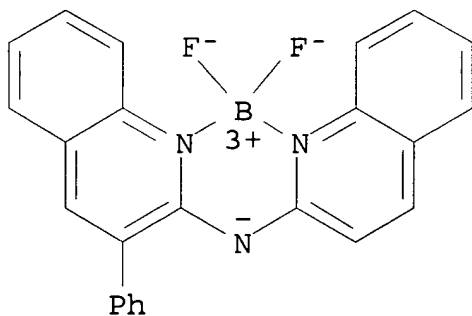
CN Boron, [3,4-diphenyl-N-(2-quinolinyl-κN)-2-quinolinaminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 676120-53-9 HCAPLUS

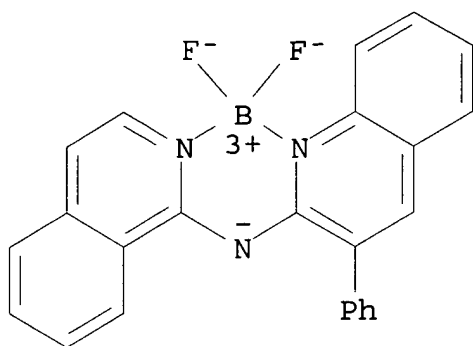
CN Boron, difluoro[4-phenyl-N-(4-phenyl-2-quinolinyl- κ N)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)

RN 676120-54-0 HCAPLUS

CN Boron, difluoro[3-phenyl-N-(2-quinolinyl- κ N)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)

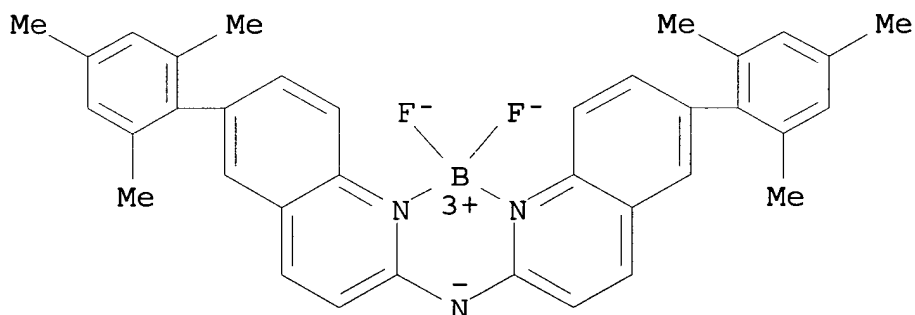
RN 676120-55-1 HCAPLUS

CN Boron, difluoro[N-(1-isoquinolinyl- κ N)-3-phenyl-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



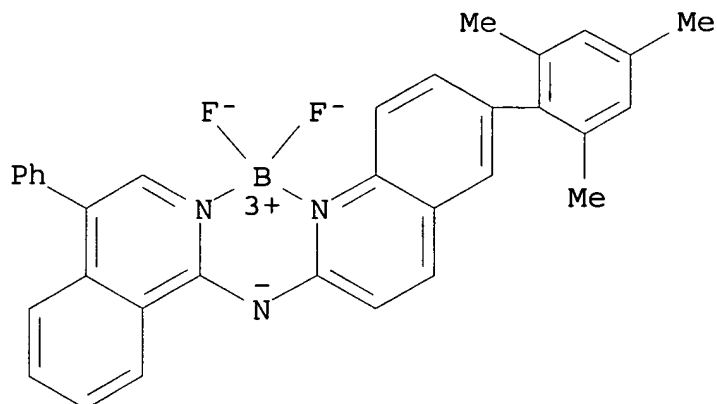
RN 676120-56-2 HCAPLUS

CN Boron, difluoro[6-(2,4,6-trimethylphenyl)-N-[6-(2,4,6-trimethylphenyl)-2-quinolinyl-κN]-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 676120-57-3 HCAPLUS

CN Boron, difluoro[N-(4-phenyl-1-isoquinolinyl-κN)-6-(2,4,6-trimethylphenyl)-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



IT 23786-72-3 676120-58-4 676120-59-5

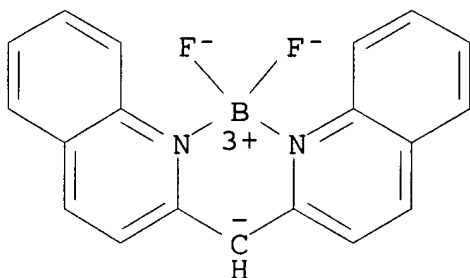
RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(green emitting dopant; white organic light-emitting devices
using

super rubrenes organic yellow emitting material with improved
performance)

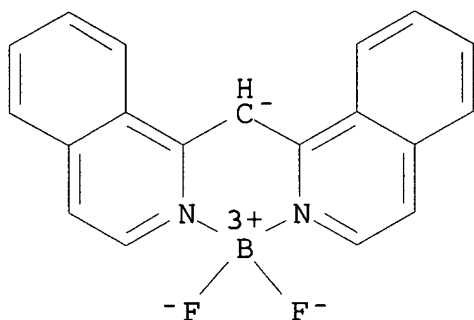
RN 23786-72-3 HCAPLUS

CN Boron, difluoro[[2,2'-methylenebis[quinolinato-κN]](1-)]-,
(T-4)- (9CI) (CA INDEX NAME)



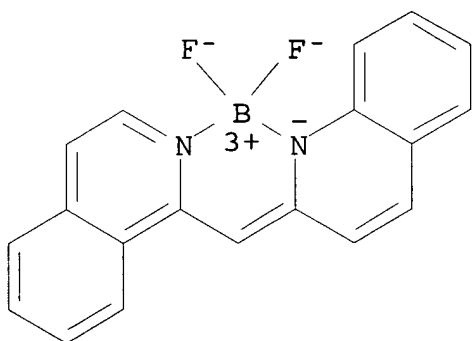
RN 676120-58-4 HCAPLUS

CN Boron, difluoro[[1,1'-methylenebis[isoquinolinato-κN]](1-)]-,
(T-4)- (9CI) (CA INDEX NAME)



RN 676120-59-5 HCAPLUS

CN Boron, difluoro[2-[(1-isoquinolinyl-κN)methylene]-1(2H)-quinolinyl-κN]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM H05B033-14

INCL 428690000; 428917000; 428332000; 313504000; 313506000; 313112000; 257098000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 76

IT 55035-43-3 676120-51-7 676120-52-8
676120-53-9 676120-54-0 676120-55-1
676120-56-2 676120-57-3

RL: DEV (Device component use); MOA (Modifier or additive use);

USES (Uses)

(blue emitting dopant; white organic light-emitting devices

using

super rubrenes organic yellow emitting material with improved performance)

IT 23786-72-3 42029-62-9 221455-80-7 574749-25-0
676120-58-4 676120-59-5 676120-60-8

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(green emitting dopant; white organic light-emitting devices
using
super rubrenes organic yellow emitting material with improved
performance)

L36 ANSWER 19 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:855292 HCAPLUS

DOCUMENT NUMBER: 139:355878

TITLE: Organic element for electroluminescent
devices

INVENTOR(S): Hoag, Benjamin P.; Conley, Scott R.;
Kondakov,

Denis Y.; Owczarczyk, Zbyslaw R.; Brown,
Christopher T.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S. Pat. Appl. Publ., 26 pp., Cont.-in-part
of U.S. Ser. No. 86,085, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
DATE			
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US 2003201415	A1	20031030	US 2002-183242
2002			
0627			
US 6661023	B2	20031209	
EP 1340798	A2	20030903	EP 2003-75445
2003			
0217			
EP 1340798	A3	20040204	
EP 1340798	B1	20050413	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
JP 2003257670	A2	20030912	JP 2003-51059

2003

0227
CN 1441630 A 20030910 CN 2003-119806

2003

0228
PRIORITY APPLN. INFO.: US 2002-86085 B2

2002

0228
US 2002-183242 A

2002

0627

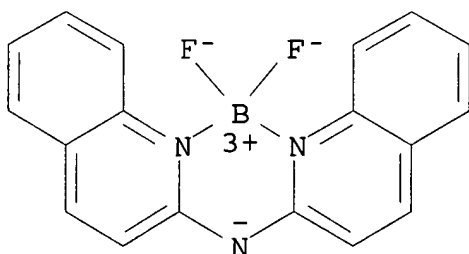
OTHER SOURCE(S): MARPAT 139:355878

AB An OLED device is described comprising a light-emitting layer containing a host and a dopant where the dopant comprises a B compound complexed by 2 ring nitrogens of a deprotonated bis(azinyl)amine ligand.

IT **593245-94-4**
RL: DEV (Device component use); USES (Uses)
(organic element for electroluminescent devices using boron compound dopant)

RN 593245-94-4 HCAPLUS

CN Boron, difluoro[N-(2-quinolinyl-κN)-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)

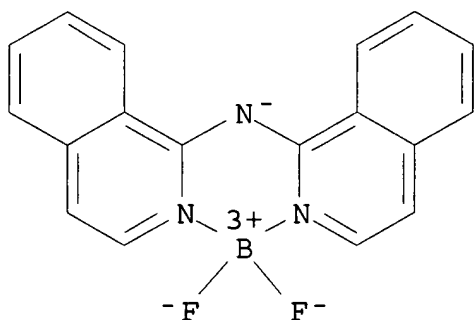


IT **593245-95-5P 593245-97-7P 593246-20-9P**
RL: DEV (Device component use); IMF (Industrial manufacture); MOA

(Modifier or additive use); PREP (Preparation); USES (Uses)
 (organic element for electroluminescent devices using boron
 compound
 dopant)

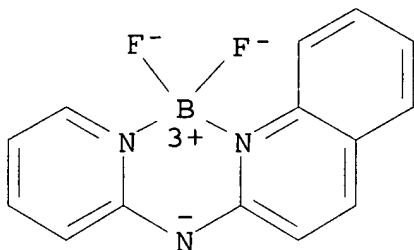
RN 593245-95-5 HCAPLUS

CN Boron, difluoro[N-(1-isoquinolinyl- κ N)-1-isoquinolinaminato- κ N2]-, (T-4)- (9CI) (CA INDEX NAME)



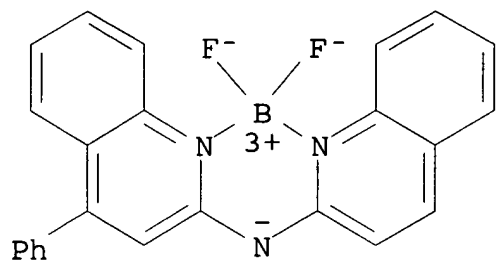
RN 593245-97-7 HCAPLUS

CN Boron, difluoro[N-(2-pyridinyl- κ N)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 593246-20-9 HCAPLUS

CN Boron, difluoro[4-phenyl-N-(2-quinolinyl- κ N)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



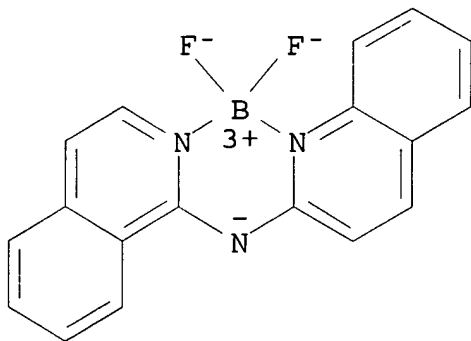
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 593246-02-7 593246-04-9 593246-05-0
 593246-06-1 593246-08-3 593246-09-4
 593246-12-9 593246-13-0 593246-15-2
 593246-16-3 593246-18-5 593246-19-6
 593246-21-0

RL: DEV (Device component use); MOA (Modifier or additive use);
 USES (Uses)

(organic element for electroluminescent devices using boron
 compound
 dopant)

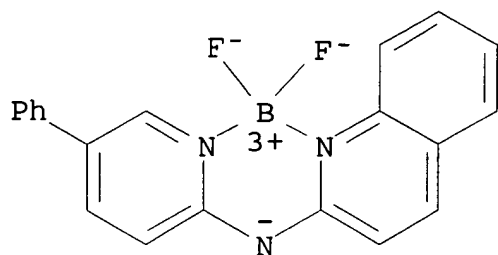
RN 593245-96-6 HCAPLUS

CN Boron, difluoro[N-(1-isoquinolinyl-κN)-2-quinolinaminato-
 κN1]-, (T-4)- (9CI) (CA INDEX NAME)



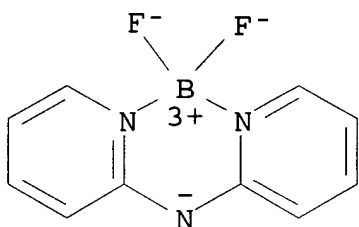
RN 593245-98-8 HCAPLUS

CN Boron, difluoro[N-(5-phenyl-2-pyridinyl-κN)-2-
 quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



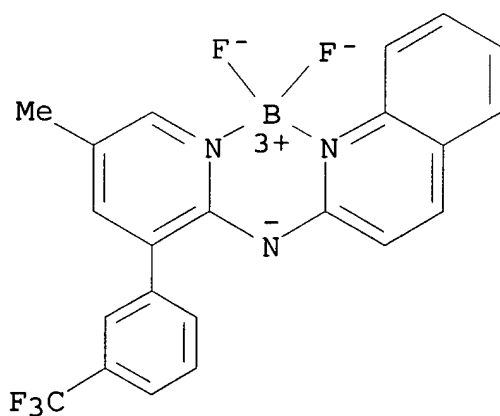
RN 593245-99-9 HCAPLUS

CN Boron, difluoro[N-(2-pyridinyl-κN)-2-pyridinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 593246-02-7 HCAPLUS

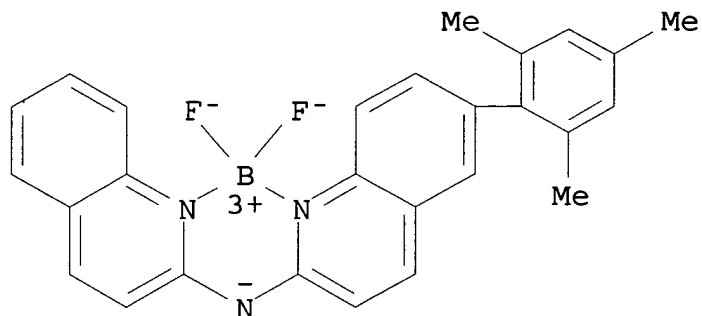
CN Boron, difluoro[N-[5-methyl-3-[3-(trifluoromethyl)phenyl]-2-pyridinyl-κN]-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 593246-04-9 HCAPLUS

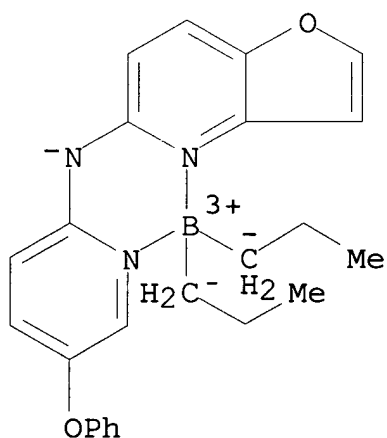
CN Boron, difluoro[N-(2-quinolinyl-κN)-6-(2,4,6-

trimethylphenyl)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



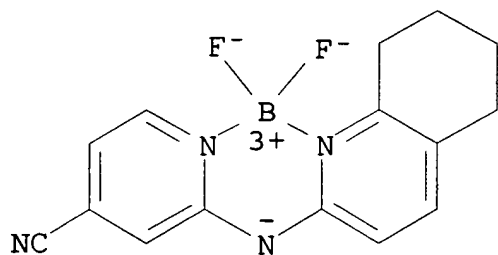
RN 593246-05-0 HCAPLUS

CN Boron, [N-(5-phenoxy-2-pyridinyl- κ N) furo[3,2-b]pyridin-5-aminato- κ N4]dipropyl-, (T-4)- (9CI) (CA INDEX NAME)



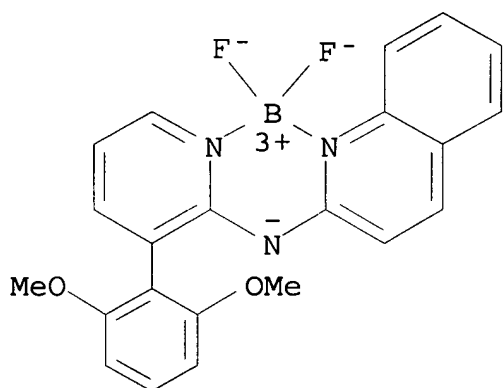
RN 593246-06-1 HCAPLUS

CN Boron, difluoro[2-[(5,6,7,8-tetrahydro-2-quinolinyl- κ N)amino]-4-pyridinecarbonitrilato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



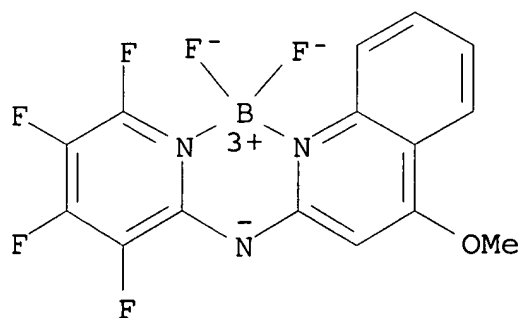
RN 593246-08-3 HCAPLUS

CN Boron, [N-[3-(2,6-dimethoxyphenyl)-2-pyridinyl-κN]-2-quinolinaminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



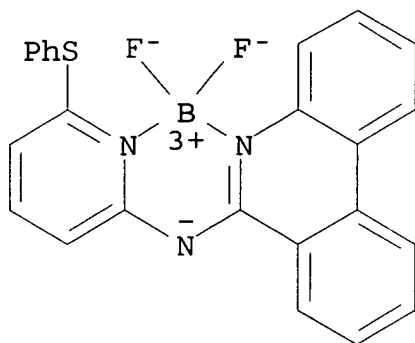
RN 593246-09-4 HCAPLUS

CN Boron, difluoro[4-methoxy-N-(3,4,5,6-tetrafluoro-2-pyridinyl-κN)-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



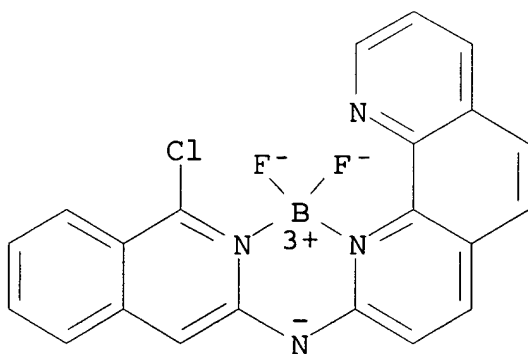
RN 593246-12-9 HCAPLUS

CN Boron, difluoro[N-[6-(phenylthio)-2-pyridinyl-κN]-6-phenanthridinaminato-κN5]-, (T-4)- (9CI) (CA INDEX NAME)



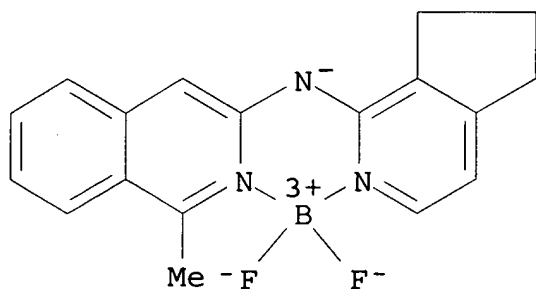
RN 593246-13-0 HCAPLUS

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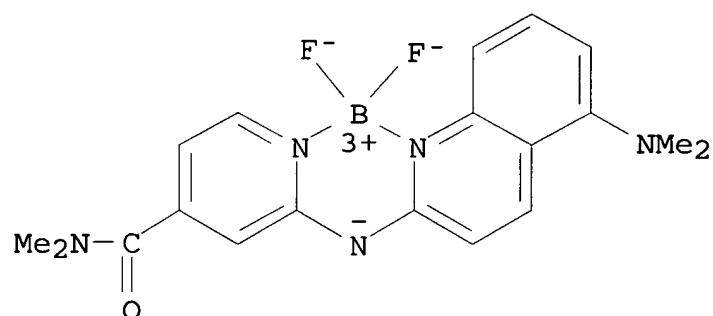


RN 593246-15-2 HCAPLUS

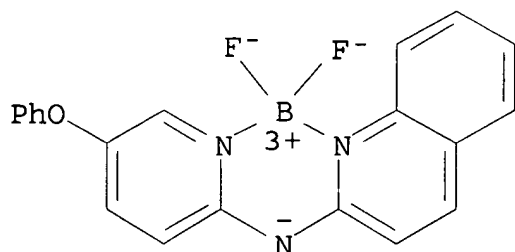
CN Boron, [N-(6,7-dihydro-5H-cyclopenta[c]pyridin-1-yl-κN)-1-methyl-3-isoquinolinaminato-κN2]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



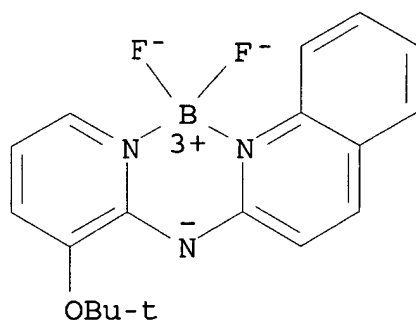
RN 593246-16-3 HCAPLUS
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 (CA INDEX NAME)



RN 593246-18-5 HCAPLUS
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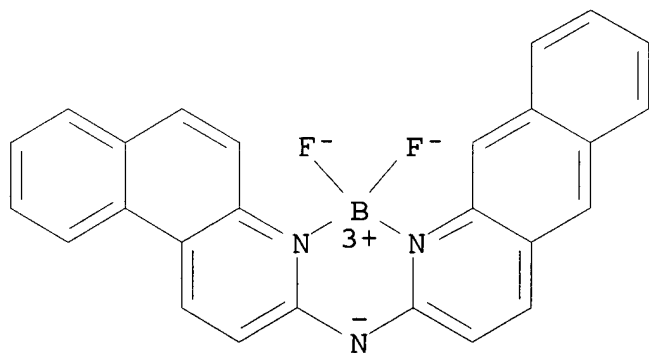


RN 593246-19-6 HCAPLUS
 CN Boron, [N-[3-(1,1-dimethylethoxy)-2-pyridinyl-κN]-2-quinolinaminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 593246-21-0 HCAPLUS

CN Boron, [N-(benzo[f]quinolin-3-yl-κN)benzo[g]quinolin-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM F16K031-12

ICS H01L035-24; H01L051-00

INCL 251040000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 22, 76

IT **593245-94-4**

RL: DEV (Device component use); USES (Uses)

(organic element for electroluminescent devices using boron compound dopant)

IT **593245-95-5P 593245-97-7P 593246-20-9P**

RL: DEV (Device component use); IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)

(organic element for electroluminescent devices using boron compound)

dopant)
IT 593245-96-6 593245-98-8 593245-99-9
593246-00-5 593246-01-6 593246-02-7 593246-03-8
593246-04-9 593246-05-0 593246-06-1
593246-07-2 593246-08-3 593246-09-4
593246-10-7 593246-11-8 593246-12-9
593246-13-0 593246-14-1 593246-15-2
593246-16-3 593246-17-4 593246-18-5
593246-19-6 593246-21-0
RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)
(organic element for electroluminescent devices using boron
compound
dopant)

L36 ANSWER 20 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:777809 HCAPLUS
DOCUMENT NUMBER: 139:269724
TITLE: Compounds useful as photodynamic therapeutic
agents
INVENTOR(S): O'Shea, Donal; Killoran, John; Gallagher,
William
PATENT ASSIGNEE(S): University College Dublin, National
University
of Ireland Dublin, Ire.
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
DATE			
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WO 2003080627	A1	20031002	WO 2003-EP3174

2003

0324

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CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC,
SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US,

UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
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PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG
AU 2003224000 A1 20031008 AU 2003-224000

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0324

EP 1492799 A1 20050105 EP 2003-720375

2003

0324

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US 2005107335 A1 20050519 US 2003-508754

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PRIORITY APPLN. INFO.:

IE 2002-209 A

2002

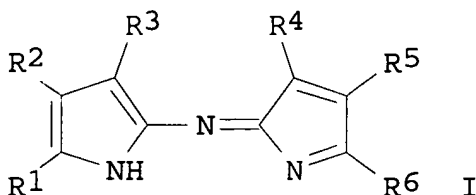
0322

WO 2003-EP3174 W

2003

0324

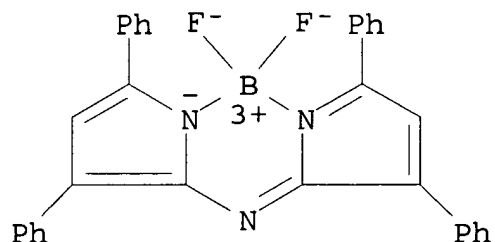
OTHER SOURCE(S): MARPAT 139:269724
GI



AB The present invention claims azadipyrromethenes (I) or a salt, metal complex or hydrate or other solvate thereof, (R1, R2, R3, R4, R5 and R6 are independently selected from the group consisting of H; a (un)substituted, (un)saturated, cyclic, moiety; a (un)substituted, (un)saturated, heterocyclic moiety; or a (un)substituted, (un)saturated, straight or branched chain alkyl or acyl moiety; metals = B, Al, Zn, Si, Mg, Lu, Sn). The present invention also claims the use of these compds. in the therapy in vivo or in vitro of a photosensitive target biol. cell by irradiation, as well as methods of treating a photosensitive target biol. cell in vivo or in vitro. Finally, the present invention claims pharmaceutical compns., comprising these compds., in association with a pharmaceutically acceptable diluent or carrier. For example, I (R1 = R3 = R4 = R6, R2 = R5 = H) reacted with BF₃.OEt₂ to give LBF2 (L = I) in 72-38 % yield. LBF2 was characterized by absorption and fluorescence spectra and the fluorescence quantum yields were determined

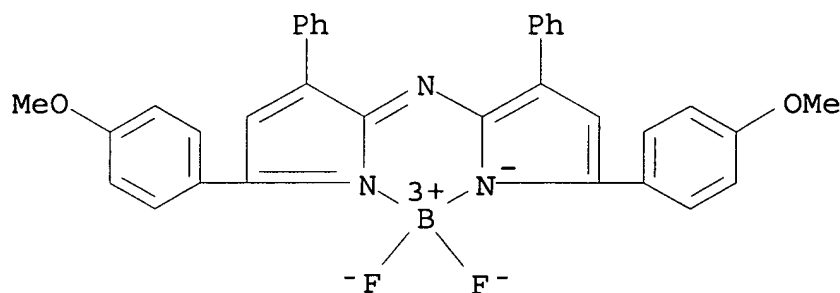
IT 154827-68-6P 490035-88-6P 490035-89-7P 490035-90-0P
 RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation and fluorescence quantum yields for use in photodynamic therapy for cancer)

RN 154827-68-6 HCAPLUS
 CN Boron, [N-(3,5-diphenyl-2H-pyrrol-2-ylidene-κN)-3,5-diphenyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



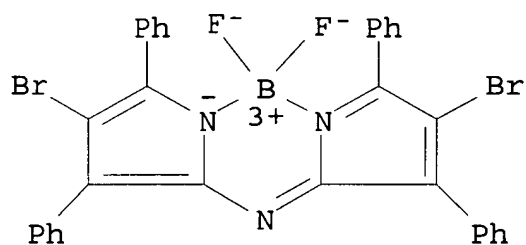
RN 490035-88-6 HCAPLUS

CN Boron, difluoro[5-(4-methoxyphenyl)-N-[5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene- κ N]-3-phenyl-1H-pyrrol-2-aminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



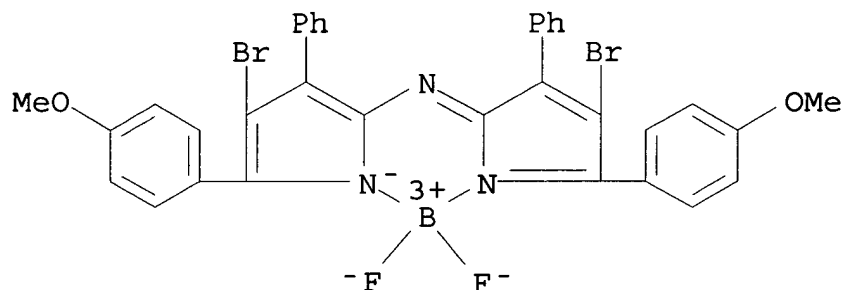
RN 490035-89-7 HCAPLUS

CN Boron, [4-bromo-N-(4-bromo-3,5-diphenyl-2H-pyrrol-2-ylidene- κ N)-3,5-diphenyl-1H-pyrrol-2-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 490035-90-0 HCAPLUS

CN Boron, [4-bromo-N-[4-bromo-5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene- κ N]-5-(4-methoxyphenyl)-3-phenyl-1H-pyrrol-2-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



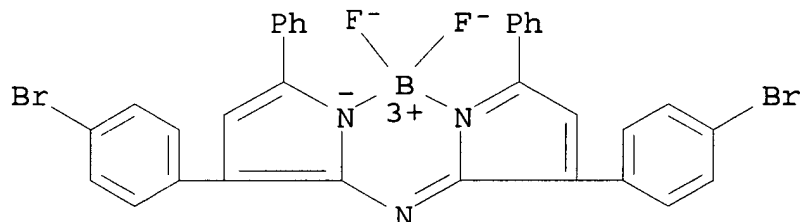
IT **603105-62-0P**

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation for use in photodynamic therapy for cancer)

RN 603105-62-0 HCAPLUS

CN Boron,

[3-(4-bromophenyl)-N-[3-(4-bromophenyl)-5-phenyl-2H-pyrrol-2-ylidene-κN]-5-phenyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM C07F005-02

ICS A61N005-06; A61K031-69

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 8, 27, 73, 74, 75

IT **154827-68-6P 490035-88-6P 490035-89-7P**

490035-90-0P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and fluorescence quantum yields for use in photodynamic

therapy for cancer)

IT **603105-62-0P**

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation for use in photodynamic therapy for cancer)
 REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE
 FOR THIS RECORD. ALL CITATIONS
 AVAILABLE
 IN THE RE FORMAT

L36 ANSWER 21 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:693198 HCAPLUS
 DOCUMENT NUMBER: 139:237455
 TITLE: Organic element for electroluminescent
 devices
 INVENTOR(S): Hoaq, Benjamin P.; Kondakov, Denis Y.;
 Conley,
 Scott R.; Owczarczyk, Zbyslaw R.; Brown,
 Christopher T.
 PATENT ASSIGNEE(S): Eastman Kodak Company, USA
 SOURCE: Eur. Pat. Appl., 38 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
EP 1340798	A2	20030903	EP 2003-75445
EP 1340798	A3	20040204	
EP 1340798	B1	20050413	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
US 2003201415	A1	20031030	US 2002-183242
US 6661023	B2	20031209	US 2002-86085
PRIORITY APPLN. INFO.:			A

US 2002-183242

A

2002

0627

OTHER SOURCE(S): MARPAT 139:237455

AB An OLED device comprising a light-emitting layer containing a host and a dopant where the dopant comprises a B compound complexed by 2 ring nitrogens of a deprotonated bis(azinyl)amine ligand is described.

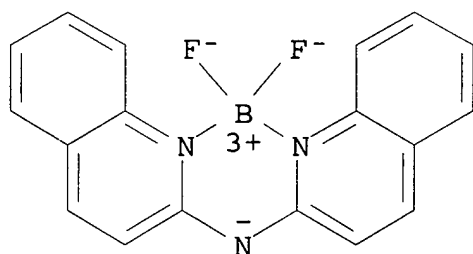
IT 593245-94-4

RL: DEV (Device component use); USES (Uses)

(organic element for electroluminescent devices using boron compound dopant)

RN 593245-94-4 HCAPLUS

CN Boron, difluoro[N-(2-quinolinyl-κN)-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



IT 593245-96-6 593245-98-8 593245-99-9

593246-02-7 593246-04-9 593246-05-0

593246-06-1 593246-08-3 593246-09-4

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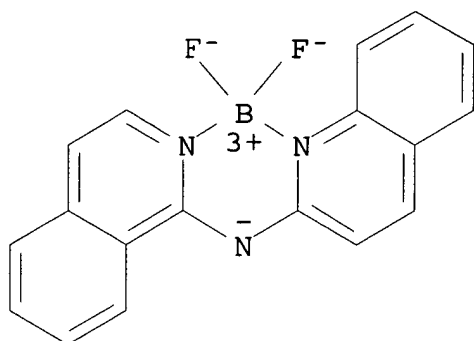
RL: DEV (Device component use); MOA (Modifier or additive use);

USES (Uses)

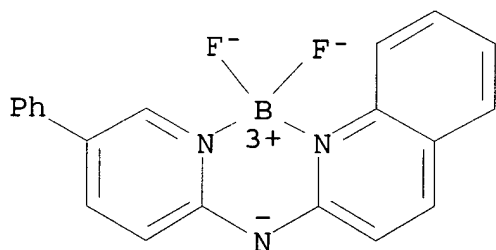
(organic element for electroluminescent devices using boron compound dopant)

RN 593245-96-6 HCAPLUS

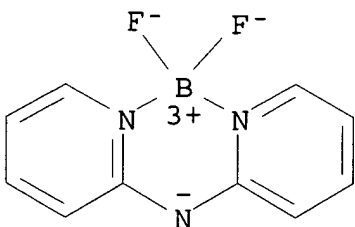
CN Boron, difluoro[N-(1-isoquinolinyl-κN)-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



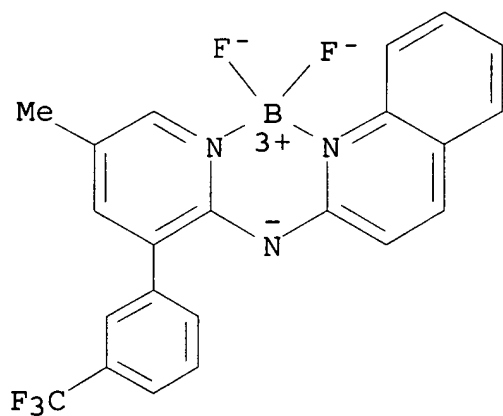
RN 593245-98-8 HCAPLUS
 CN Boron, difluoro[N-(5-phenyl-2-pyridinyl-κN)-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 593245-99-9 HCAPLUS
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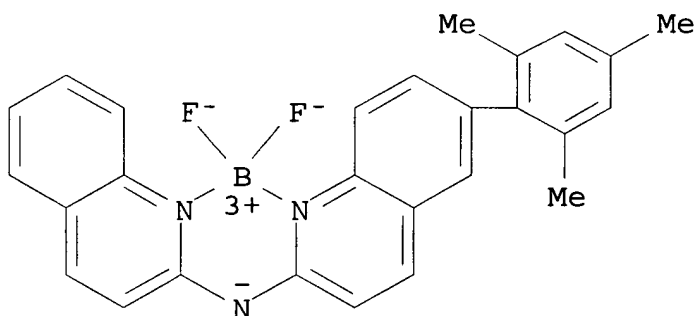


RN 593246-02-7 HCAPLUS
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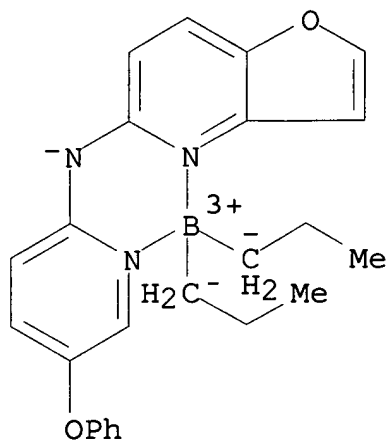
RN 593246-04-9 HCAPLUS

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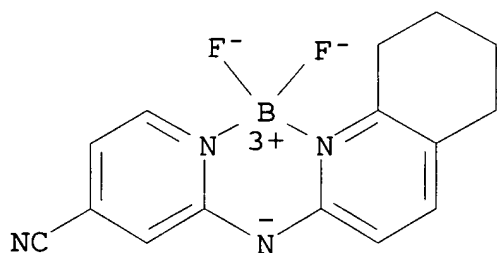
RN 593246-05-0 HCAPLUS

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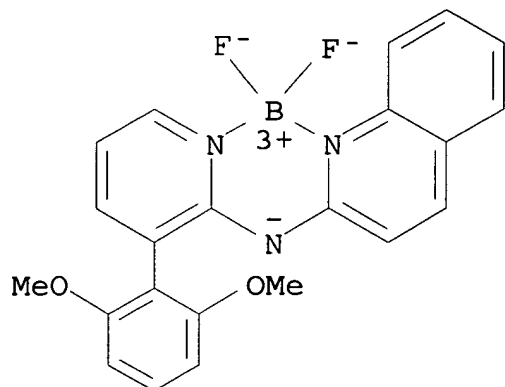
RN 593246-06-1 HCAPLUS

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(CA INDEX NAME)



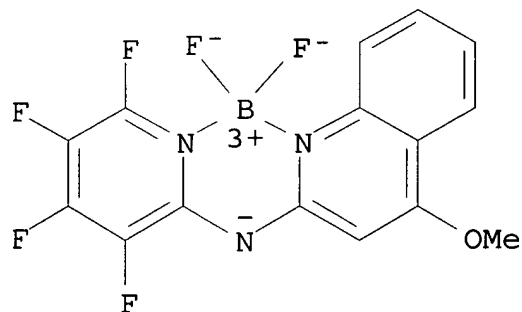
RN 593246-08-3 HCAPLUS

CN Boron, [N-[3-(2,6-dimethoxyphenyl)-2-pyridinyl- κ N]-2-quinolinaminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



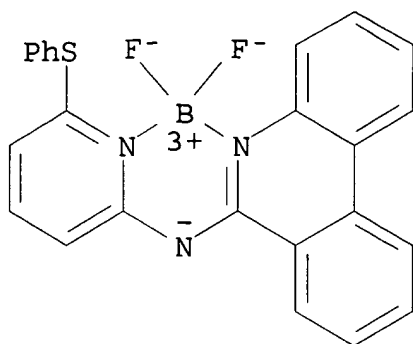
RN 593246-09-4 HCAPLUS

CN Boron, difluoro[4-methoxy-N-(3,4,5,6-tetrafluoro-2-pyridinyl- κ N)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



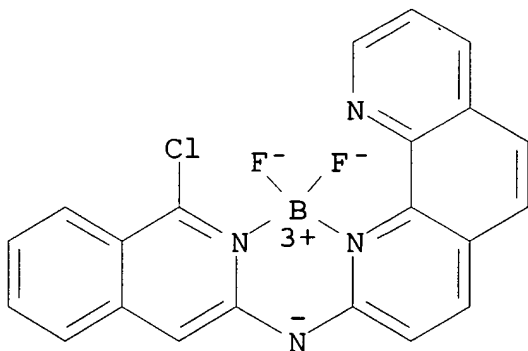
RN 593246-12-9 HCAPLUS

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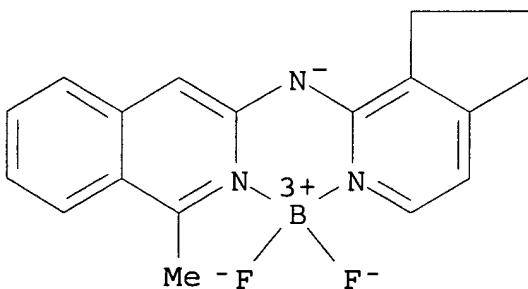
RN 593246-13-0 HCAPLUS

CN Boron, [N-(1-chloro-3-isoquinolinyl-κN)-1,10-phenanthroline-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)

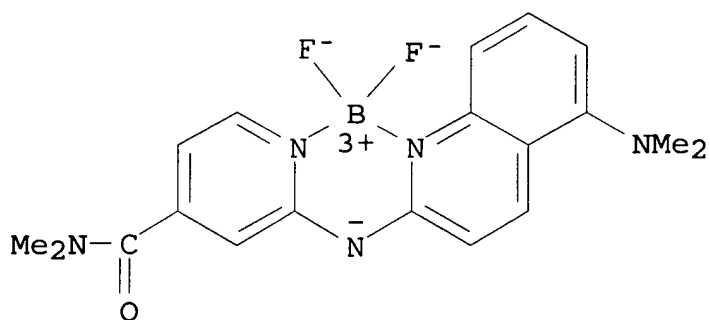


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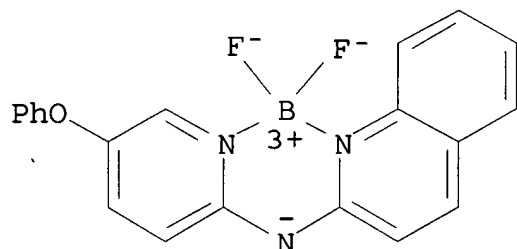
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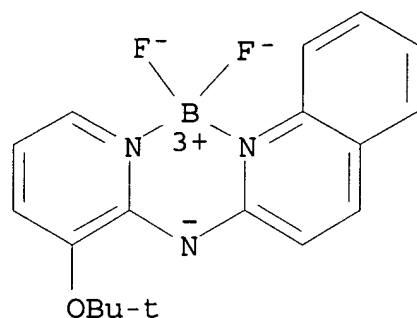
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 (CA INDEX NAME)



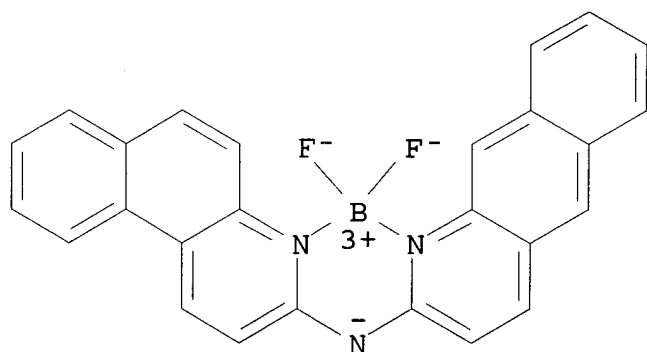
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 CN Boron, difluoro[N-(5-phenoxy-2-pyridinyl-κN)-2-quinolinaminato-κN1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 593246-19-6 HCAPLUS
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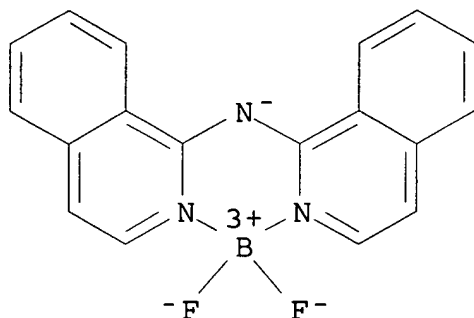
RN 593246-21-0 HCAPLUS
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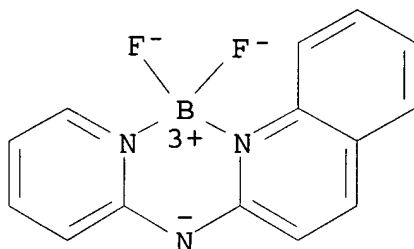
IT 593245-95-5P 593245-97-7P 593246-20-9P
 RL: DEV (Device component use); MOA (Modifier or additive use);
 SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
 (organic element for electroluminescent devices using boron
 compound

dopant)

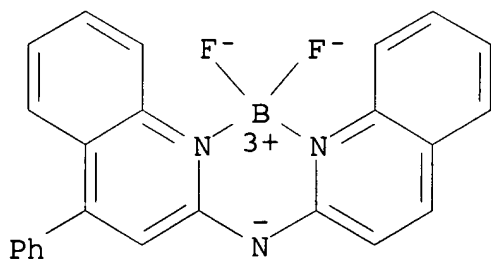
RN 593245-95-5 HCAPLUS
 CN Boron, difluoro[N-(1-isoquinolinyl-κN)-1-isoquinolinaminato-κN2]-, (T-4)- (9CI) (CA INDEX NAME)



RN 593245-97-7 HCAPLUS
 CN Boron, difluoro[N-(2-pyridinyl- κ N)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 593246-20-9 HCAPLUS
 CN Boron, difluoro[4-phenyl-N-(2-quinolinyl- κ N)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM C09K011-06
 ICS H05B033-14; H01L051-20
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 22, 76

IT 593245-94-4

RL: DEV (Device component use); USES (Uses)

(organic element for electroluminescent devices using boron compound dopant)

IT 593245-96-6 593245-98-8 593245-99-9

593246-00-5 593246-01-6 593246-02-7 593246-03-8

593246-04-9 593246-05-0 593246-06-1

593246-07-2 593246-08-3 593246-09-4

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593246-16-3 593246-17-4 593246-18-5

593246-19-6 593246-21-0

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(organic element for electroluminescent devices using boron compound dopant)

IT 593245-95-5P 593245-97-7P 593246-20-9P

RL: DEV (Device component use); MOA (Modifier or additive use);
SPN (Synthetic preparation); PREP (Preparation); USES (Uses)

(organic element for electroluminescent devices using boron compound dopant)

L36 ANSWER 22 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:678247 HCAPLUS

DOCUMENT NUMBER: 139:221344

TITLE: Organic vertical cavity lasing devices having
organic active region

INVENTOR(S): Kahen, Keith B.; Vargas, J. Ramon; Kondakov,
Denis Y.; Brown, Christopher T.; Cosimbescu,
Lelia; Jarikov, Viktor

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S. Pat. Appl. Publ., 41 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
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US 2003161368	A1	20030828	US 2002-269652

2002

1011

US 6876684 B2 20050405
EP 1408591 A2 20040414 EP 2003-78088

2003

0929

EP 1408591 A3 20040908
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ,
EE, HU, SK
CN 1497812 A 20040519 CN 2003-10102778

2003

1010

JP 2004282008 A2 20041007 JP 2003-352397

2003

1010

PRIORITY APPLN. INFO.: GB 2001-24595 A

2001

1012

US 2002-269652 A

2002

1011

OTHER SOURCE(S): MARPAT 139:221344

AB Organic vertical cavity lasers which comprise a bottom dielec. stack

reflective to light over a predetd. range of wavelengths; an organic active region; and a top dielec. stack spaced from the bottom dielec. stack and reflective to light over a predetd. range of wavelengths are described in which pump light is transmitted and introduced into the organic active region through ≥ 1 of the dielec. stacks; and the organic active region includes ≥ 1 periodic gain region(s) and transparent (to the laser light) organic

spacer layers disposed on either side of the periodic gain region(s) and arranged so that the periodic gain region(s) is aligned with the antinodes of the device's standing wave electromagnetic field.

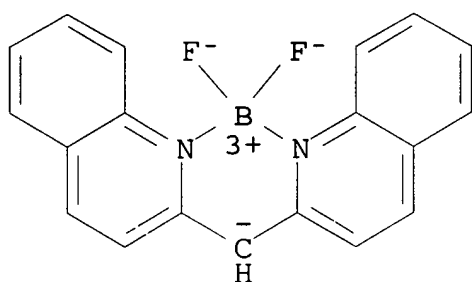
IT 23786-72-3 23786-74-5

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(organic vertical cavity lasers)

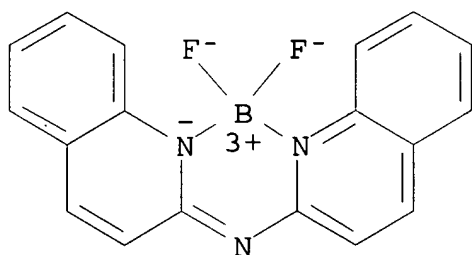
RN 23786-72-3 HCAPLUS

CN Boron, difluoro[[2,2'-methylenebis[quinolinato- κ N]](1-)]-,
(T-4)- (9CI) (CA INDEX NAME)



RN 23786-74-5 HCAPLUS

CN Boron, difluoro[N-(2(1H)-quinolinylidene- κ N)-2-quinolinaminato- κ N1]]-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM H01S003-14

ICS H01S003-091; H01S003-092; H01S003-08

INCL 372039000; 372096000; 372070000

CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT 91-22-5D, Quinoline, derivs. 92-82-0D, Phenazine, derivs.

120-73-0D, Purine, derivs. 135-67-1D, Phenoxazine, derivs.

198-55-0, Perylene 260-94-6D, Acridine, derivs. 517-51-1,

Rubrene 989-38-8 2085-33-8,

Tris(8-hydroxyquinolinato)aluminum

4733-39-5, 2,9-Dimethyl-4,7-diphenyl-1,10-phenanthroline
7385-67-3 **23786-72-3 23786-74-5** 55035-43-3
55035-47-7 62556-02-9 80663-92-9 97083-12-0 155306-71-1
175606-05-0 200052-70-6 217449-57-5 221455-80-7
345312-03-0 587848-66-6

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(organic vertical cavity lasers)

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS

AVAILABLE

IN THE RE FORMAT

L36 ANSWER 23 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:647393 HCAPLUS

DOCUMENT NUMBER: 138:122679

TITLE: Synthesis of BF₂ chelates of
tetraarylazadipyrromethenes and evidence for
their photodynamic therapeutic behavior

AUTHOR(S): Killoran, John; Allen, Lorcan; Gallagher,
John

CORPORATE SOURCE: F.; Gallagher, William M.; O'Shea, Donal F.
Conway Institute, Centre for Synthesis and
Chemical Biology, Department of Chemistry,
University College Dublin, Belfield, Dublin,
Ire.

SOURCE: Chemical Communications (Cambridge, United
Kingdom) (2002), (17), 1862-1863
CODEN: CHCOFS; ISSN: 1359-7345

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:122679

AB The synthesis, spectroscopic characteristics and in vitro
cellular

uptake properties of a new class of therapeutic window
photosensitizer, namely the BF₂ chelates of

3,5-diaryl-1H-pyrrol-2-

yl-3,5-diarylpyrrol-2-ylidene amines

(tetraarylazadipyrromethenes)

, are described with the aim of developing a novel class of
photodynamic therapeutic agents.

IT **490035-91-1P**

RL: PRP (Properties); SPN (Synthetic preparation); PREP
(Preparation)

(crystal structure; synthesis of boron difluoride chelates of
tetraarylazadipyrromethenes and evidence for their
photodynamic

therapeutic behavior)

RN 490035-91-1 HCAPLUS

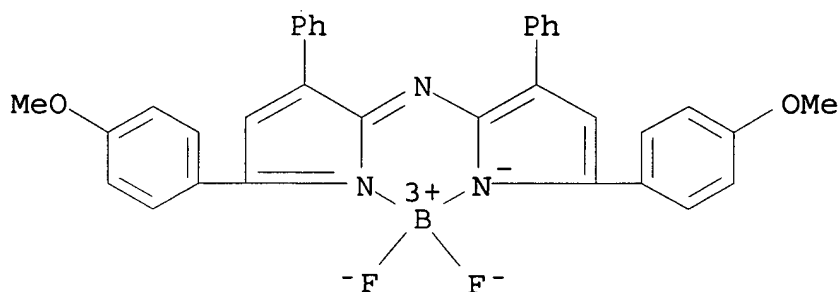
CN Boron, difluoro[5-(4-methoxyphenyl)-N-[5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene-κN]-3-phenyl-1H-pyrrol-2-aminato-κN1]-, (T-4)-, compd. with methylbenzene (2:1) (9CI) (CA INDEX NAME)

CM 1

CRN 490035-88-6

CMF C34 H26 B F2 N3 O2

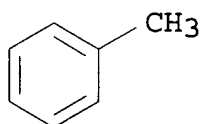
CCI CCS



CM 2

CRN 108-88-3

CMF C7 H8



IT 490035-88-6P

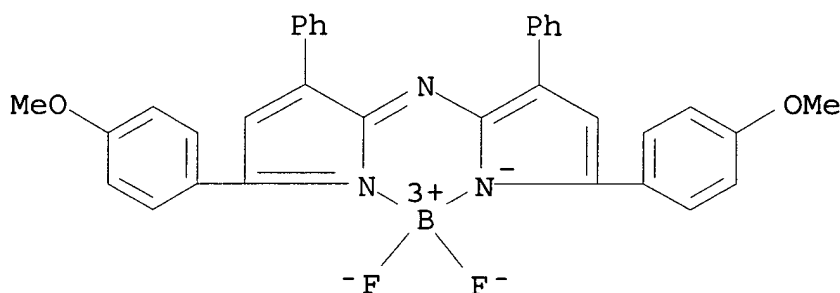
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(mol. structure; synthesis of boron difluoride chelates of tetraarylazadipyrromethenes and evidence for their photodynamic

therapeutic behavior)

RN 490035-88-6 HCAPLUS

CN Boron, difluoro[5-(4-methoxyphenyl)-N-[5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene- κ N]-3-phenyl-1H-pyrrol-2-aminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



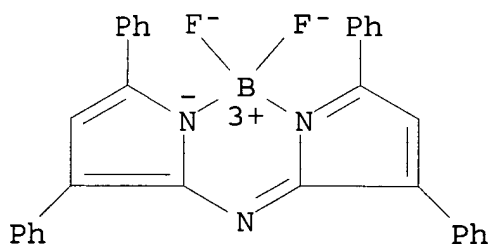
IT 154827-68-6P 490035-89-7P 490035-90-0P

RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis of boron difluoride chelates of tetraarylazadipyrromethenes and evidence for their photodynamic therapeutic behavior)

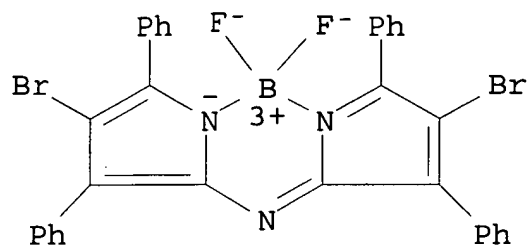
RN 154827-68-6 HCAPLUS

CN Boron, [N-(3,5-diphenyl-2H-pyrrol-2-ylidene- κ N)-3,5-diphenyl-1H-pyrrol-2-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 490035-89-7 HCAPLUS

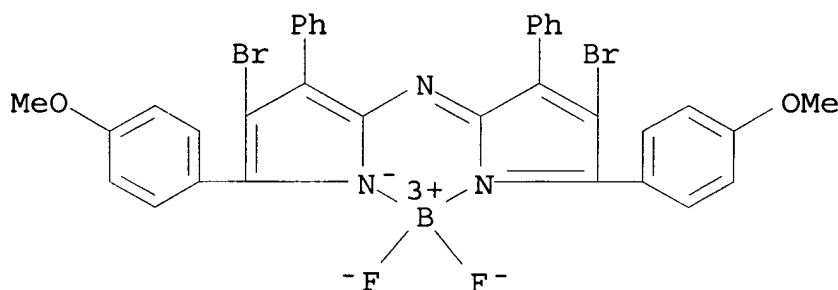
CN Boron, [4-bromo-N-(4-bromo-3,5-diphenyl-2H-pyrrol-2-ylidene- κ N)-3,5-diphenyl-1H-pyrrol-2-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 490035-90-0 HCAPLUS

CN Boron,

[4-bromo-N-[4-bromo-5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene-κN]-5-(4-methoxyphenyl)-3-phenyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



CC 29-4 (Organometallic and Organometalloidal Compounds)

Section cross-reference(s): 1, 75

IT 490035-91-1P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(crystal structure; synthesis of boron difluoride chelates of tetraarylazadipyrromethenes and evidence for their photodynamic therapeutic behavior)

IT 490035-88-6P

RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(mol. structure; synthesis of boron difluoride chelates of tetraarylazadipyrromethenes and evidence for their photodynamic therapeutic behavior)

IT 154827-68-6P 490035-89-7P 490035-90-0P

RL: BSU (Biological study, unclassified); PRP (Properties); SPN

(Synthetic preparation); BIOL (Biological study); PREP
(Preparation)

(synthesis of boron difluoride chelates of
tetraarylazadipyrromethenes and evidence for their
photodynamic
therapeutic behavior)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS
AVAILABLE
IN THE RE FORMAT

L36 ANSWER 24 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:225683 HCAPLUS

DOCUMENT NUMBER: 130:304098

TITLE: Optical recording medium and azapyrromethene
metal chelate compound

INVENTOR(S): Misawa, Tsutayoshi; Sugimoto, Kenichi;
Nishimoto, Taizo; Tsukahara, Hiroshi; Takuma,
Keisuke

PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan; Yamamoto
Chemicals Inc.

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
DATE			
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JP 11092479	A2	19990406	JP 1997-252009

1997

0917

PRIORITY APPLN. INFO.: JP 1997-252009

1997

0917

OTHER SOURCE(S): MARPAT 130:304098
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

*

AB The medium comprises a substrate having a recording layer, in which contains an azapyrromethene metal chelate compound obtained from a metal ion and I [R1-6 = H, halo, C_≤20 (substituted) alkyl, alkoxy, alkenyl, acyl, alkoxy carbonyl, aralkyl, aryl, heteroaryl; R1 and R2, R2 and R3, R4 and R5, or R5 and R6 may form an aromatic ring which is codensed with a pyrrole ring], and a reflective layer. The azapyrromethene metal chelate compound II and

III (R7-14 are same as R1-6; M = transition metal) are also claimed. The medium is useful for high-d. recording and rewriting

information using laser beam with wavelength 520-690 nm.

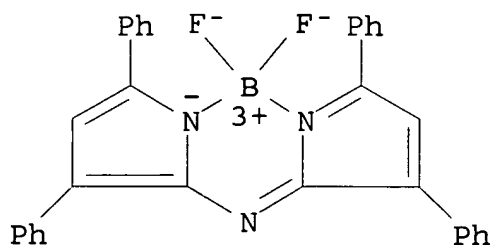
IT 154827-68-6 223474-43-9 223474-49-5
223474-54-2 223474-59-7 223474-65-5
223474-72-4 223474-77-9 223474-81-5
223474-86-0 223474-91-7 223474-97-3
223475-02-3 223475-42-1 223475-44-3
223475-46-5 223475-48-7 223475-50-1
223475-52-3 223475-54-5 223475-56-7
223475-58-9 223475-60-3

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(optical recording medium containing azapyrromethene metal chelate compound)

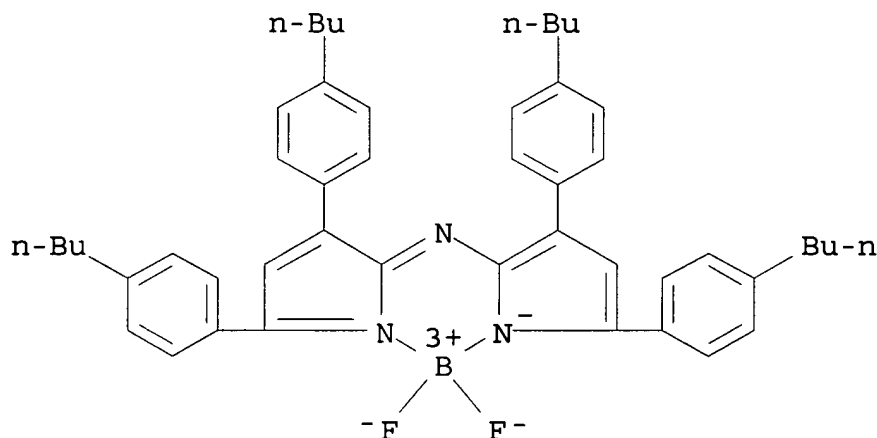
RN 154827-68-6 HCAPLUS

CN Boron, [N-(3,5-diphenyl-2H-pyrrol-2-ylidene-κN)-3,5-diphenyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



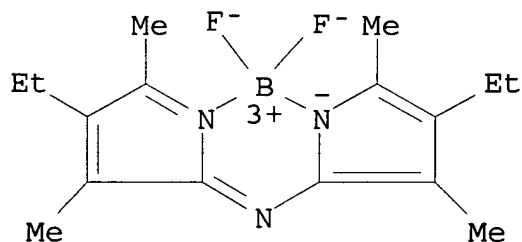
RN 223474-43-9 HCAPLUS

CN Boron, [N-[3,5-bis(4-butylphenyl)-2H-pyrrol-2-ylidene-κN]-
3,5-bis(4-butylphenyl)-1H-pyrrol-2-aminato-κN1]difluoro-,
(T-4)- (9CI) (CA INDEX NAME)



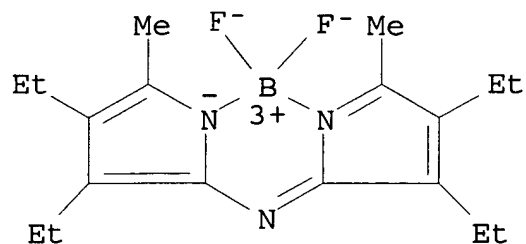
RN 223474-49-5 HCAPLUS

CN Boron, [4-ethyl-N-(4-ethyl-3,5-dimethyl-2H-pyrrol-2-ylidene-
κN)-3,5-dimethyl-1H-pyrrol-2-aminato-κN1]difluoro-,
(T-4)- (9CI) (CA INDEX NAME)



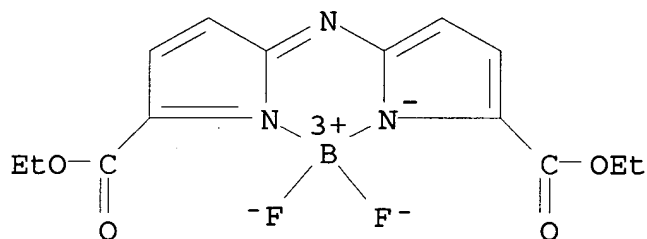
RN 223474-54-2 HCAPLUS

CN Boron, [N-(3,4-diethyl-5-methyl-2H-pyrrol-2-ylidene-κN)-3,4-
diethyl-5-methyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)-
(9CI) (CA INDEX NAME)



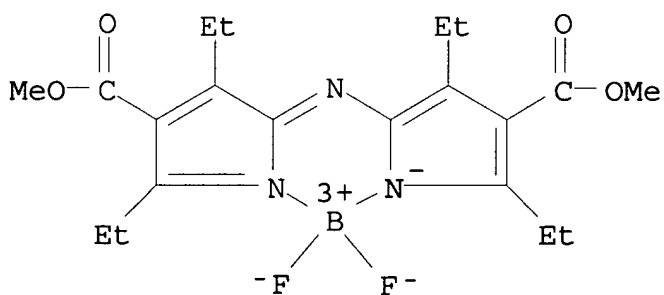
RN 223474-59-7 HCAPLUS

CN Boron, [ethyl 5-[[5-(ethoxycarbonyl)-2H-pyrrol-2-ylidene- κ N]amino]-1H-pyrrole-2-carboxylato- κ N1]difluoro-,
(T-4)- (9CI) (CA INDEX NAME)



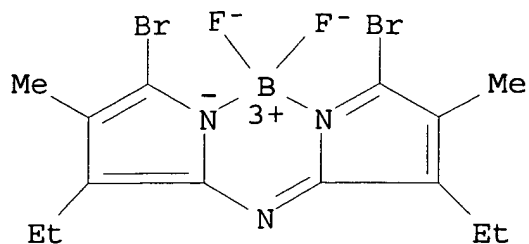
RN 223474-65-5 HCAPLUS

CN Boron, difluoro[methyl 5-[[[3,5-diethyl-4-(methoxycarbonyl)-2H-pyrrol-2-ylidene- κ N]amino]-2,4-diethyl-1H-pyrrole-3-carboxylato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 223474-72-4 HCAPLUS

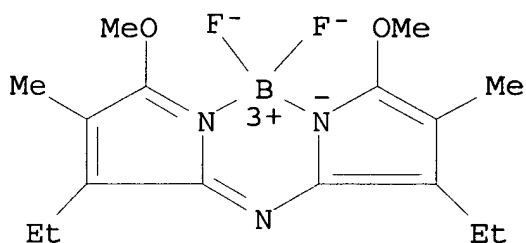
CN Boron, [5-bromo-N-(5-bromo-3-ethyl-4-methyl-2H-pyrrol-2-ylidene- κ N)-3-ethyl-4-methyl-1H-pyrrol-2-aminato- κ N1]difluoro-,
(T-4)- (9CI) (CA INDEX NAME)



RN 223474-77-9 HCAPLUS

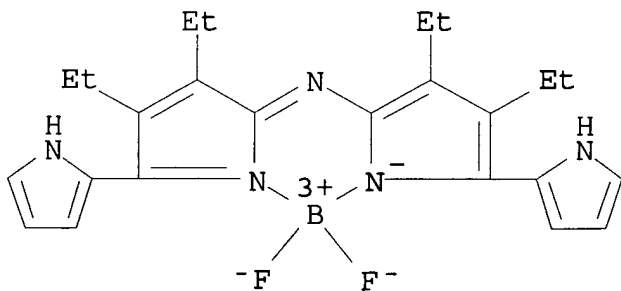
CN Boron,

[3-ethyl-N-(3-ethyl-5-methoxy-4-methyl-2H-pyrrol-2-ylidene- κ N)-5-methoxy-4-methyl-1H-pyrrol-2-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



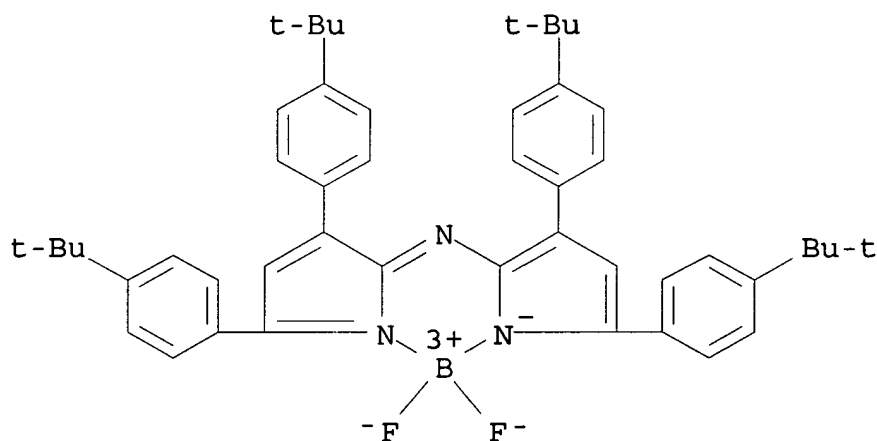
RN 223474-81-5 HCAPLUS

CN Boron, [N-[3,4-diethyl-5-(1H-pyrrol-2-yl)-2H-pyrrol-2-ylidene- κ N]-3,4-diethyl[2,2'-bi-1H-pyrrol]-5-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



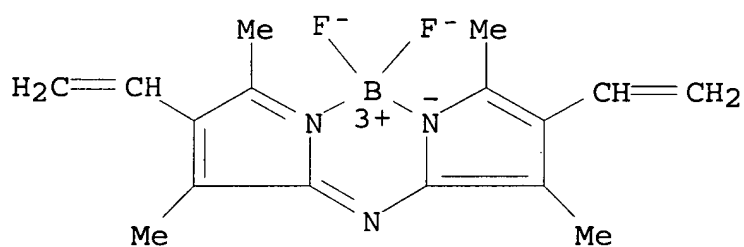
RN 223474-86-0 HCAPLUS

CN Boron, [N-[3,5-bis[4-(1,1-dimethylethyl)phenyl]-2H-pyrrol-2-ylidene- κ N]-3,5-bis[4-(1,1-dimethylethyl)phenyl]-1H-pyrrol-2-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



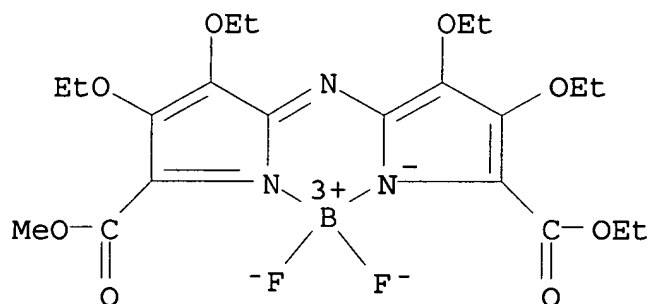
RN 223474-91-7 HCAPLUS

CN Boron, [4-ethenyl-N-(4-ethenyl-3,5-dimethyl-2H-pyrrol-2-ylidene- κ N)-3,5-dimethyl-1H-pyrrol-2-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



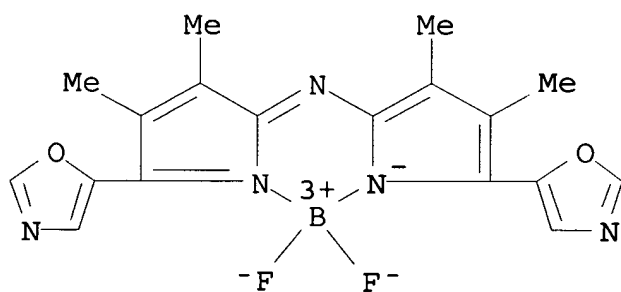
RN 223474-97-3 HCAPLUS

CN Boron, [ethyl 5-[[3,4-diethoxy-5-(methoxycarbonyl)-2H-pyrrol-2-ylidene- κ N]amino]-3,4-diethoxy-1H-pyrrole-2-carboxylato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



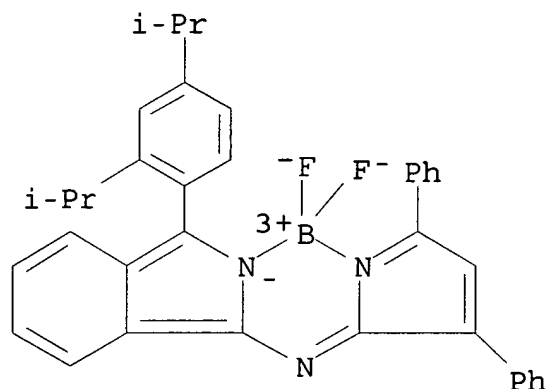
RN 223475-02-3 HCAPLUS

CN Boron, [N-[3,4-dimethyl-5-(5-oxazolyl)-2H-pyrrol-2-ylidene-κN]-3,4-dimethyl-5-(5-oxazolyl)-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



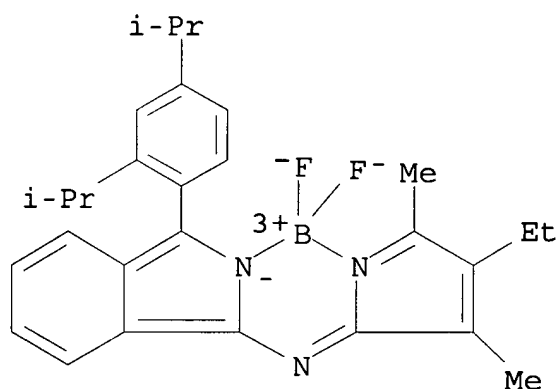
RN 223475-42-1 HCAPLUS

CN Boron, [3-[2,4-bis(1-methylethyl)phenyl]-N-(3,5-diphenyl-2H-pyrrol-2-ylidene-κN)-2H-isoindol-1-aminato-κN2]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



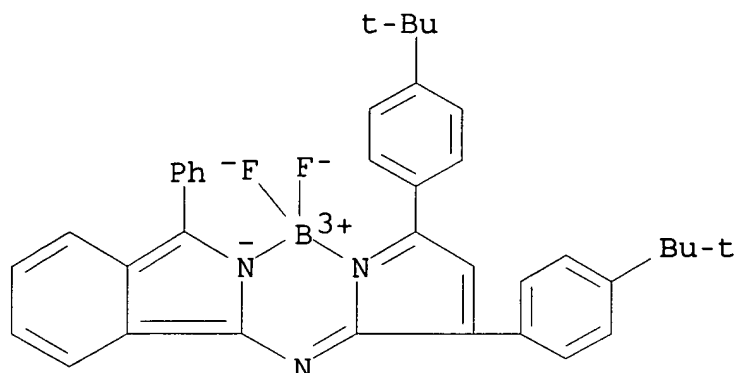
RN 223475-44-3 HCAPLUS

CN Boron, [3- [2,4-bis(1-methylethyl)phenyl]-N-(4-ethyl-3,5-dimethyl-2H-pyrrol-2-ylidene-κN)-2H-isoindol-1-aminato-κN2]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



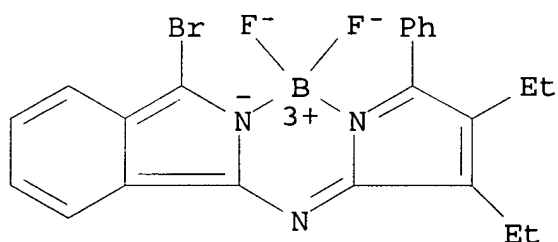
RN 223475-46-5 HCAPLUS

CN Boron, [N-[3,5-bis[4-(1,1-dimethylethyl)phenyl]-2H-pyrrol-2-ylidene-κN]-3-phenyl-2H-isoindol-1-aminato-κN2]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



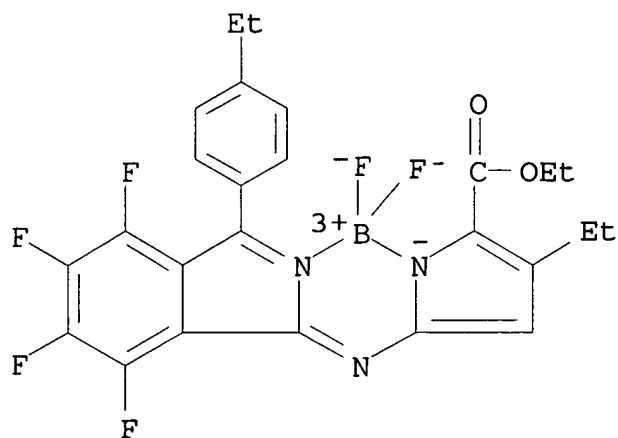
RN 223475-48-7 HCAPLUS

CN Boron, [3-bromo-N-(3,4-diethyl-5-phenyl-2H-pyrrol-2-ylidene- κ N)-2H-isoindol-1-aminato- κ N2]difluoro-, (T-4)- (9CI)
(CA INDEX NAME)



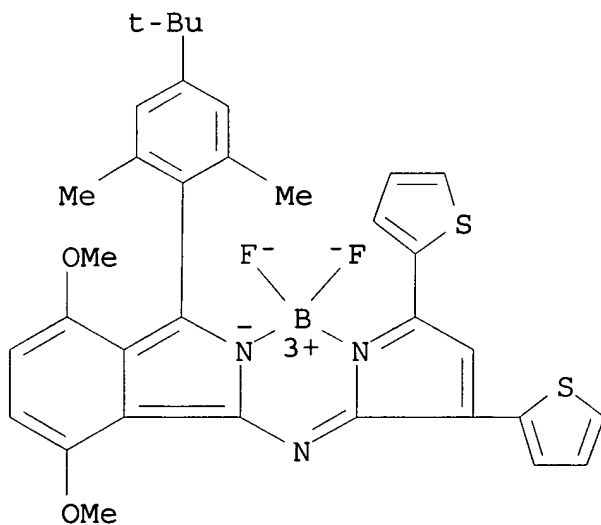
RN 223475-50-1 HCAPLUS

CN Boron, [ethyl 3-ethyl-5-[[3-(4-ethylphenyl)-4,5,6,7-tetrafluoro-1H-isoindol-1-ylidene- κ N]amino]-1H-pyrrole-2-carboxylato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



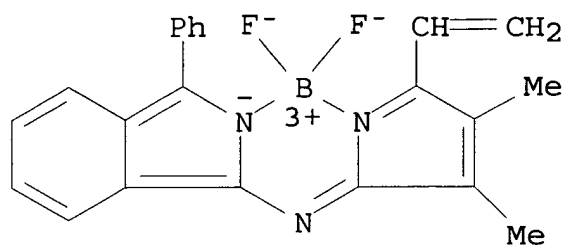
RN 223475-52-3 HCAPLUS

CN Boron, [3-[4-(1,1-dimethylethyl)-2,6-dimethylphenyl]-N-(3,5-di-2-thienyl-2H-pyrrol-2-ylidene-κN)-4,7-dimethoxy-2H-isoindol-1-aminato-κN2]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



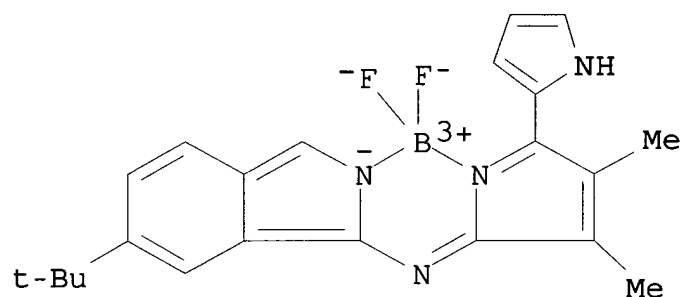
RN 223475-54-5 HCAPLUS

CN Boron, [N-(5-ethenyl-3,4-dimethyl-2H-pyrrol-2-ylidene-κN)-3-phenyl-2H-isoindol-1-aminato-κN2]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



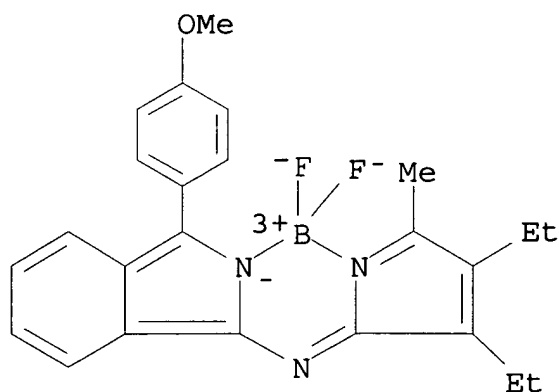
RN 223475-56-7 HCAPLUS

CN Boron, [6-(1,1-dimethylethyl)-N-[3,4-dimethyl-5-(1H-pyrrol-2-yl)-2H-pyrrol-2-ylidene-κN]-2H-isoindol-1-aminato-κN2]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



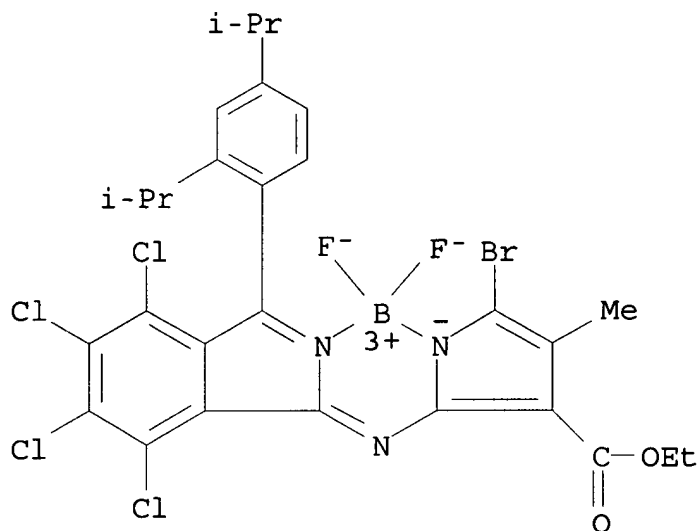
RN 223475-58-9 HCAPLUS

CN Boron, [N-(3,4-diethyl-5-methyl-2H-pyrrol-2-ylidene-κN)-3-(4-methoxyphenyl)-2H-isoindol-1-aminato-κN2]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 223475-60-3 HCAPLUS

CN Boron, [ethyl 2-[[3-[2,4-bis(1-methylethyl)phenyl]-4,5,6,7-tetrachloro-1H-isoindol-1-ylidene-κN]amino]-5-bromo-4-methyl-1H-pyrrole-3-carboxylato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM C07F001-08
ICS B41M005-26; C07F003-06; C07F005-02; C07F015-04; C09B055-00;
G11B007-24; C09K003-00

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 29

IT **154827-68-6** 223473-95-8 223473-99-2 223474-04-2
223474-06-4 223474-08-6 223474-11-1 223474-13-3
223474-16-6 223474-19-9 223474-22-4 223474-25-7
223474-30-4 223474-36-0 **223474-43-9**
223474-49-5 **223474-54-2** **223474-59-7**
223474-65-5 **223474-72-4** **223474-77-9**
223474-81-5 **223474-86-0** **223474-91-7**
223474-97-3 **223475-02-3** 223475-12-5
223475-17-0 223475-23-8 223475-26-1 223475-29-4
223475-32-9 223475-35-2 223475-38-5 223475-40-9
223475-42-1 **223475-44-3** **223475-46-5**
223475-48-7 **223475-50-1** **223475-52-3**
223475-54-5 **223475-56-7** **223475-58-9**
223475-60-3

RL: DEV (Device component use); MOA (Modifier or additive use);
USES (Uses)

(optical recording medium containing azapyrromethene metal
chelate

compound)

L36 ANSWER 25 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:104550 HCAPLUS
DOCUMENT NUMBER: 130:179624
TITLE: Stains for acidic organelles consisting of
dipyrrrometheneboron difluoride derivs.
INVENTOR(S): Zhang, Yu-Zhong; Diwu, Zhenjun; Haugland,
Richard P.
PATENT ASSIGNEE(S): Molecular Probes, Inc, USA
SOURCE: U.S., 19 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
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US 5869689	A	19990209	US 1995-544226

1995

1017

PRIORITY APPLN. INFO.: US 1995-544226

1995

1017

OTHER SOURCE(S): MARPAT 130:179624

AB The present invention includes a method and materials for staining

acidic organelles, whether present in cells or as isolated cell-free organelles, with a fluorescent dye. The method comprises, preparing a labeling solution containing a fluorescent stain,

where the fluorescent stain comprises a substituted or unsubstituted dipyrrrometheneboron difluoride dye possessing a covalently attached basic amine moiety, and incubating a sample comprising isolated acidic organelles, or a cell or cells containing

acidic organelles, in the labeling solution for a time sufficient to

produce fluorescent labeled acidic organelles. The stained acidic

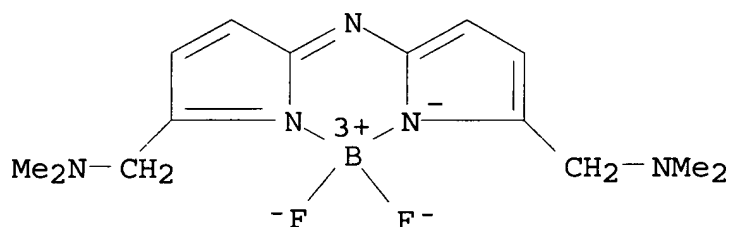
organelles are optionally observed using a means for detecting the fluorescent signal, and optionally sorted.

IT **220524-91-4P**

RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (synthesis and use as dye; stains for acidic organelles consisting of dipyrrometheneboron difluoride derivs.)

RN 220524-91-4 HCAPLUS

CN Boron, [5-[[5-[(dimethylamino)methyl]-2H-pyrrol-2-ylidene-κN]amino]-N,N-dimethyl-1H-pyrrole-2-methanaminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM C07D207-00

INCL 548405000

CC 9-4 (Biochemical Methods)

Section cross-reference(s): 6, 27

IT 220524-70-9P 220524-71-0P 220524-72-1P 220524-73-2P
 220524-74-3P 220524-75-4P 220524-76-5P 220524-78-7P
 220524-81-2P 220524-83-4P 220524-84-5P 220524-85-6P
 220524-86-7P 220524-87-8P 220524-88-9P 220524-89-0P
 220524-90-3P **220524-91-4P**

RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses) (synthesis and use as dye; stains for acidic organelles consisting of dipyrrometheneboron difluoride derivs.)

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS

AVAILABLE

IN THE RE FORMAT

L36 ANSWER 26 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:508883 HCAPLUS

DOCUMENT NUMBER: 129:169864

TITLE: Microspheres with fluorescent spherical zones

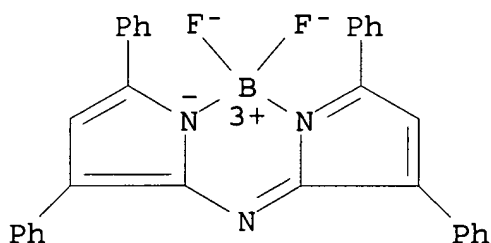
INVENTOR(S): Zhang, Yu-Zhong; Kemper, Courtenay R.;
 Haugland, Richard P.
 PATENT ASSIGNEE(S): Molecular Probes, Inc., USA
 SOURCE: U.S., 17 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
US 5786219	A	19980728	US 1996-740184
CA 2218483	C	20011218	CA 1997-2218483
CA 2218483	AA	19980428	
GB 2318580	A1	19980429	GB 1997-22158
GB 2318580	B2	19990106	
			US 1996-740184 A

OTHER SOURCE(S): MARPAT 129:169864

AB The invention describes novel fluorescently labeled microspheres, where the microspheres possess at least one internal fluorescent spherical zone. The invention also describes the method of preparing the novel microspheres, the method of calibrating microscopy instrumentation using the novel microspheres, the method of using the novel microspheres as distinct labels for combinatorial anal. and the use of the labeled microspheres as tagging agents and tracers.

IT 154827-68-6, 4,4-Difluoro-1,3,5,7-tetraphenyl-4-bora-3a,4a,8-triaza-s-indacene
 RL: ARU (Analytical role, unclassified); ANST (Analytical study) (fluorescently labeled polymeric microspheres with internal fluorescent spherical zones)
 RN 154827-68-6 HCAPLUS
 CN Boron, [N-(3,5-diphenyl-2H-pyrrol-2-ylidene- κ N)-3,5-diphenyl-1H-pyrrol-2-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM G01N033-546
 ICS G01N033-533
 INCL 436523000
 CC 79-3 (Inorganic Analytical Chemistry)
 Section cross-reference(s): 38
 IT 51-17-2, Benzimidazole 79-06-1D, 2-Propenamide, polymers, analysis 79-10-7D, 2-Propenoic acid, polymers, analysis 79-39-0D, Methacrylamide, polymers 79-41-4D, polymers
 85-01-8,
 Phenanthrene, analysis 91-20-3, Naphthalene, analysis
 95-16-9,
 Benzothiazole 100-42-5D, polymers 107-13-1D,
 2-Propenenitrile,
 polymers, analysis 120-12-7, Anthracene, analysis 126-98-7D,
 Methacrylonitrile, polymers 129-00-0, Pyrene, analysis
 191-07-1, Coronene 198-55-0, Perylene 260-94-6, Acridine
 273-53-0, Benzoxazole 588-59-0, Stilbene 1321-74-0D, Divinyl
 benzene, polymers 1450-63-1, 1,1,4,4-Tetraphenyl-1,3-butadiene
 1720-32-7, 1,6-Diphenyl-1,3,5-hexatriene 3688-79-7 7385-67-3,
 Nile red 9003-53-6D, Polystyrene, crosslinked 38215-36-0,
 Coumarin 6 55804-66-5, Coumarin 314 62669-74-3, Coumarin 138
 68654-22-8 121207-31-6, 4,4-Difluoro-1,3,5,7,8-pentamethyl-4-bora-3a,4a-diaza-s-indacene 126368-67-0, 4,4-Difluoro-1,3-dimethyl-5,7-diphenyl-4-bora-3a,4a-diaza-s-indacene
 152072-93-0,
 4,4-Difluoro-1,3-diphenyl-5-(2-pyrrolyl)-4-bora-3a,4a-diaza-s-indacene 152111-67-6,
 4,4-Difluoro-1,3-dimethyl-5-(2-thienyl)-4-

bora-3a,4a-diaza-s-indacene 154793-50-7, 4,4-Difluoro-1,3,5,7-tetraphenyl-4-bora-3a,4a-diaza-s-indacene **154827-68-6**, 4,4-Difluoro-1,3,5,7-tetraphenyl-4-bora-3a,4a,8-triaza-s-indacene 168021-22-5,

Difluoro(5-methoxy-1-((5-methoxy-3-(4-methoxyphenyl)-2H-isoindol-1-yl)methylene)-3-(4-methoxyphenyl)-1H-isoindolato-N1,N2)boron 168021-30-5, Difluoro(1-((3-(4-methoxyphenyl)-2H-isoindol-1-yl)methylene)-3-(4-methoxyphenyl)-1H-isoindolato-N1,N2)boron 204376-56-7, 4,4-Difluoro-2-ethyl-1,3,5,7,8-pentamethyl-4-bora-3a,4a-diaza-s-indacene 204376-57-8, 4,4-Difluoro-1,3-dipropyl-4-bora-3a,4a-diaza-s-indacene 211179-89-4, 4,4-Difluoro-1,3-diphenyl-5,7-dipropyl-4-bora-3a,4a-diaza-s-indacene 211179-90-7, 4,4-Difluoro-1-phenyl-3-(4-methoxyphenyl)-5-(2-pyrrolyl)-4-bora-3a,4a-diaza-s-indacene 211179-92-9, 4,4-Difluoro-3,5-di(4-methoxyphenyl)-4-bora-3a,4a-diaza-s-indacene 211179-93-0, 3-Decyl-4,4-difluoro-5-styryl-4-bora-3a,4a-diaza-s-indacene 211179-94-1, 4,4-Difluoro-1,3-dimethyl-5-(4-methoxyphenyl)-4-bora-3a,4a-diaza-s-indacene 211179-95-2, Difluoro(1-((3-(2-(5-hexyl)thienyl)-2H-isoindol-1-yl)methylene)-3-(2-(5-hexyl)thienyl)-1H-isoindolato-N1,N2)boron 211179-96-3, Difluoro(5-methoxy-1-((5-methoxy-3-(2-(5-(4-methoxyphenyl))thienyl)-2H-isoindol-1-yl)methylene)-3-(2-(5-(4-methoxyphenyl))thienyl)-1H-isoindolato-N1,N2)boron 211257-04-4, 4,4-Difluoro-1,3-dimethyl-5-styryl-4-bora-3a,4a-diaza-s-indacene 211257-05-5, 4,4-Difluoro-1,3-dimethyl-5-(2-(5-methoxycarbonyl-4-methyl-2-oxazolyl)ethenyl)-4-bora-3a,4a-diaza-s-indacene
RL: ARU (Analytical role, unclassified); ANST (Analytical study) (fluorescently labeled polymeric microspheres with internal fluorescent spherical zones)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS

AVAILABLE

IN THE RE FORMAT

L36 ANSWER 27 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:157360 HCAPLUS

DOCUMENT NUMBER: 128:215257

TITLE: Dipyrrometheneboron difluoride labeled fluorescent microparticles

INVENTOR(S): Haugland, Richard P.; Haugland, Rosaria P.; Brinkley, John Michael; Kang, Hee Chol; Kuhn, Michael; Wells, K. Sam; Zhang, Yu Zhong

PATENT ASSIGNEE(S): Molecular Probes, Inc., USA

SOURCE: U.S., 17 pp., Cont.-in-part of U.S. Ser. No. 629,466. abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 11
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
US 5723218	A	19980303	US 1995-484151
1995			
0607			
US 5227487	A	19930713	US 1990-509360
1990			
0416			
US 5274113	A	19931228	US 1991-786767
1991			
1101			
US 5453517	A	19950926	US 1992-843360
1992			
0225			
US 5326692	A	19940705	US 1992-882299
1992			
0513			
US 5326692	B1	19960430	
US 5442045	A	19950815	US 1993-28319
1993			
0308			
US 5405975	A	19950411	US 1993-38918
1993			
0329			
US 5451663	A	19950919	US 1993-45758
1993			

0408
US 5433896 A 19950718 US 1994-246790
1994

0520
US 5459276 A 19951017 US 1994-246847
1994

0520
US 5501980 A 19960326 US 1994-247013
1994

0520
US 5573909 A 19961112 US 1994-247108
1994

0520
US 5516864 A 19960514 US 1995-375360
1995

0119
US 5648270 A 19970715 US 1995-384945
1995

0206
JP 2004002851 A2 20040108 JP 2003-128429
2003

0506
JP 3689412 B2 20050831
PRIORITY APPLN. INFO.: US 1990-509360 A3
1990

0416
US 1990-629466 B2
1990

1218

US 1991-786767 A3

1991

1101

US 1992-843360 A2

1992

0225

US 1992-882299 A2

1992

0513

US 1993-28319 A2

1993

0308

US 1993-38918 A3

1993

0329

US 1993-45758 A2

1993

0408

US 1994-246790 A2

1994

0520

US 1994-246847 A2

1994

0520

US 1994-247013 A2

1994

0520

US 1994-247108 A2

1994

0520

US 1995-375360 A2

1995

0119

US 1995-384945 A2

1995

0206

JP 1994-502684 A3

1993

0507

OTHER SOURCE(S): MARPAT 128:215257

AB The invention is a novel fluorescently labeled microparticle, where the microparticle internally incorporates at least one dipyrrometheneboron difluoride dye. Appropriate selection of substituents results in dipyrrometheneboron difluoride derivs. that, when incorporated into polymer microparticles, give the desired excitation and emission wavelengths. The spectral characteristics of the labeling dyes in liquid are not greatly changed when the dye is incorporated into the particles, and the spectral excitation and emission wavelengths are compatible with commonly used filter sets. Other embodiments of the fluorescent microparticles include addnl. dyes and/or bioreactive substances. Thus, red fluorescent polystyrene microspheres were prepared by the

coupling of a dipyrrometheneboron difluoride derivative with the polymer microspheres. The fluorescent microparticles thus obtained were coupled to avidin to give the reagent which bound

to

a protein-biotin conjugate.

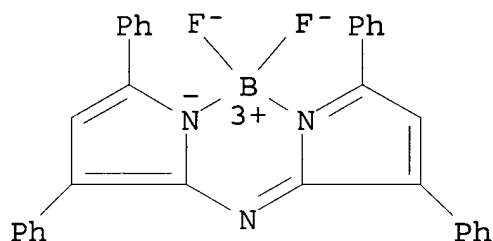
IT 154827-68-6

RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)

(dipyrrometheneboron difluoride-labeled fluorescent polymer microparticles in anal.)

RN 154827-68-6 HCAPLUS

CN Boron, [N-(3,5-diphenyl-2H-pyrrol-2-ylidene-κN)-3,5-diphenyl-1H-pyrrol-2-aminato-κN1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM B32B027-18

INCL 428402000

CC 9-7 (Biochemical Methods)

Section cross-reference(s): 1, 38

IT 9002-85-1, Poly(vinylidene chloride) 9002-86-2, PVC 9003-01-4
 9003-05-8, Polyacrylamide 9003-17-2, Polybutadiene 9003-20-7,
 PVA 9003-31-0, Polyisoprene 9003-47-8, Poly(vinylpyridine)
 9003-53-6, Polystyrene 9003-69-4, Poly(divinylbenzene)
 9011-14-7, PMMA 9017-21-4, Poly(vinyltoluene) 9080-67-5,
 Poly(vinylbenzyl chloride) 21658-70-8 25014-41-9,
 Polyacrylonitrile 39350-27-1, Polybromostyrene 121207-31-6
 126368-67-0 148185-57-3 152072-93-0 154793-49-4
 154793-50-7 154827-68-6 204376-56-7 204376-57-8

RL: ARG (Analytical reagent use); PRP (Properties); ANST (Analytical study); USES (Uses)

(dipyrrometheneboron difluoride-labeled fluorescent polymer microparticles in anal.)

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS

AVAILABLE

IN THE RE FORMAT

L36 ANSWER 28 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:524961 HCAPLUS

DOCUMENT NUMBER: 127:212157

TITLE: Spectroscopy and molecular structure of efficient laser dyes: vibronic spin-orbit interactions in heterocyclics

AUTHOR(S): Pavlopoulos, Theodore G.

CORPORATE SOURCE: U.S. Naval Command, Control and Ocean Surveillance Center, Research, Development, Test and Evaluation Division Code D361, San Diego, CA, 92152, USA

SOURCE: Applied Optics (1997), 36(21), 4969-4980
CODEN: APOPAI; ISSN: 0003-6935

PUBLISHER: Optical Society of America

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB The effect of heterocyclic atom substitutions on triplet (π , π^*) transitions was studied exptl. The intensities (oscillator strengths) of the lowest-energy singlet-singlet (S-S) and triplet-triplet (T-T) transitions of anthracene and some of its heterocyclic analogs were measured. Substitution of carbon atoms by heteroatoms results in a considerable reduction of intensity of T-T

transitions. This observation is important to laser dye technol. The effect is explained by the existence of an efficient vibronic coupling mechanism between (n, π^*) and (π , π^*) triplet states in heteroatom mols. Some general guidelines for how to find efficient laser dyes are proposed. The data are preceded by a review of selected laser dyes.

IT 53217-33-7

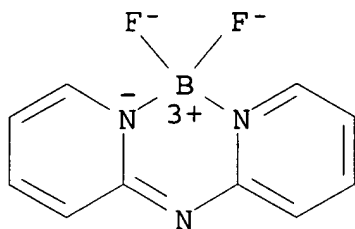
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)

(vibronic coupling mechanism between triplet states and reduction

of T-T transitions in laser dyes)

RN 53217-33-7 HCAPLUS

CN Boron, difluoro[N-(2(1H)-pyridinylidene- κ N)-2-pyridinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 41

IT 92-82-0, Phenazine 135-67-1, Phenoxazine 260-94-6, Acridine 53217-33-7 151486-59-8

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)

(vibronic coupling mechanism between triplet states and reduction of T-T transitions in laser dyes)

L36 ANSWER 29 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1996:702021 HCAPLUS

DOCUMENT NUMBER: 126:16494

TITLE: Fluorescent labeling using microparticles with

controllable Stokes shift

INVENTOR(S): Singer, Victoria L.; Haugland, Richard P.

PATENT ASSIGNEE(S): Molecular Probes, Inc., USA

SOURCE: U.S., 26 pp., Cont.-in-part of U.S. 5, 362, 692.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 11

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.
US 5573909	A	19961112	US 1994-247108
US 5326692	A	19940705	US 1992-882299

1992

0513

US 5326692
AT 167511B1
E19960430
19980715

AT 1993-913815

1993

0507

US 5723218

A

19980303

US 1995-484151

1995

0607

JP 2004002851

A2

20040108

JP 2003-128429

2003

0506

JP 3689412
PRIORITY APPLN. INFO.:

B2

20050831

US 1992-882299

A2

1992

0513

US 1990-509360

A3

1990

0416

US 1990-629466

B2

1990

1218

US 1991-786767

A3

1991

1101

US 1992-843360

A2

1992

0225

US 1993-28319 A2

1993

0308

US 1993-38918 A3

1993

0329

US 1993-45758 A2

1993

0408

JP 1994-502684 A3

1993

0507

US 1994-246790 A2

1994

0520

US 1994-246847 A2

1994

0520

US 1994-247013 A2

1994

0520

US 1994-247108 A2

1994

0520

US 1995-375360 A2

1995

0119

US 1995-384945 A2

1995

0206

OTHER SOURCE(S): MARPAT 126:16494

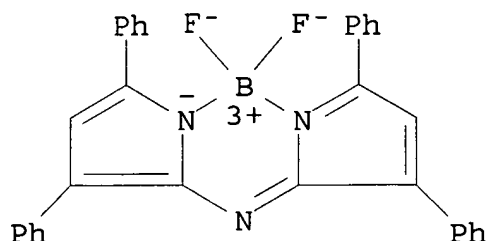
AB The invention relates to methods for labeling or detecting ≥ 1 target materials using surface-coated fluorescent microparticles with unique characteristics. The unique microparticles used to practice the invention have ≥ 2 components: an external substance or coating that is selective for each target material and an internal mixture of multiple fluorescent dyes. The mixture of dyes is a series of ≥ 2 fluorescent dyes having overlapping excitation and emission spectra allowing efficient energy transfer from the excitation wavelength of the first dye in the series, transfer through the dyes in the series and re-emission as an optical signal at the emission wavelength of last dye in the series, resulting in a desired effective Stokes shift for the microparticle that is controlled through selection of appropriate dyes. The unique microparticles are combined with a sample thought to contain the target material(s) so that the microparticles label the target materials. The sample is then optionally illuminated, resulting in fluorescence of the microparticles that is used to detect ≥ 1 target materials. Examples are given of the detection of DNA, mRNA, cell surface receptors, centromeres on human chromosomes, cytochrome oxidase, nuclear antigens, etc.

IT 154827-68-6P

RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(fluorescent labeling using microparticles with controllable Stokes shift)

RN 154827-68-6 HCAPLUS

CN Boron, [N-(3,5-diphenyl-2H-pyrrol-2-ylidene- κ N)-3,5-diphenyl-1H-pyrrol-2-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM C12Q001-68
ICS G01N033-545

INCL 435006000

CC 9-5 (Biochemical Methods)

Section cross-reference(s): 15, 73, 80

IT 21658-70-8P 126368-67-0P 152072-93-0P 154793-49-4P
154793-50-7P **154827-68-6P** 183991-74-4P

RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(fluorescent labeling using microparticles with controllable Stokes shift)

L36 ANSWER 30 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:682305 HCAPLUS

DOCUMENT NUMBER: 121:282305

TITLE: Fluorescent tricyclic β -azavinamidine-BF₂ complexes

AUTHOR(S): Sathyamoorthi, Govindarao; Soong, Mou Ling; Ross, Timothy W.; Boyer, Joseph H.

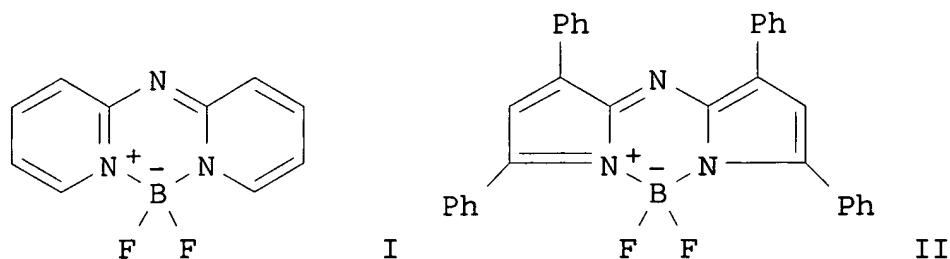
CORPORATE SOURCE: Dep. Chem., Univ. New Orleans, New Orleans, LA, 70148, USA

SOURCE: Heteroatom Chemistry (1993), 4(6), 603-8
CODEN: HETCE8; ISSN: 1042-7163

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Boron trifluoride reacted with 2,2'-dipyridylamine and its N-Me and 6,6'-dimethyl derivs. and 3,3',5,5'-tetraphenyl-6-azapyrromethene to give fluorescent β -azavinamidine (1,3,5-triazapenta-1,3-diene) dyes: 10-azapyridomethene-BF₂ complex (I) (λ_f 422 nm, λ_{as} 426 nm), its quaternary 10-Me tetrafluoroborate and 4,6-di-Me derivs. (λ_f 362 and 416 nm, resp.), and 1,3,5,7-tetraphenyl-8-azapyrromethene-BF₂ complex (II) (λ_f 696 nm). Treating 3,3',4,4'-tetraphenyl-5,5',6-trimethylpyrromethene (prepared in situ from Et 3,4-diphenyl-5-methylpyrrole-2-carboxylate and acetyl chloride) with BF₃ gave 1,2,6,7-tetraphenyl-3,5,8-trimethylpyrromethene-BF₂ complex. Absorption for the vinamidine chromophore differed from that for the β -azavinamidine chromophore by a hypsochromic shift of 86 nm in a comparison of a pyridomethene-BF₂ complex

with

its 10-aza derivative I and by a bathochromic shift of 105 nm in

a

comparison of a pyrromethene-BF₂ complex with the 8-azapyrromethene-BF₂ complex II.

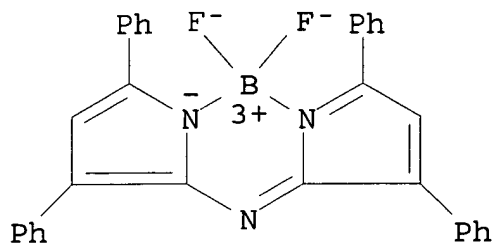
IT 154827-68-6P 158080-55-8P 158272-84-5P
158272-85-6P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation of fluorescent tricyclic β -azavinamidine-fluoroboron complexes)

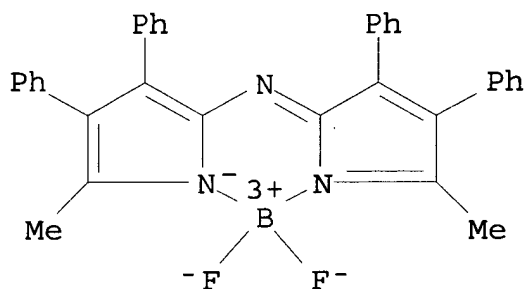
RN 154827-68-6 HCAPLUS

CN Boron, [N-(3,5-diphenyl-2H-pyrrol-2-ylidene- κ N)-3,5-diphenyl-1H-pyrrol-2-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



RN 158080-55-8 HCAPLUS

CN Boron, difluoro[5-methyl-N-(5-methyl-3,4-diphenyl-2H-pyrrol-2-ylidene)-3,4-diphenyl-1H-pyrrol-2-aminato-NN,N1]-, (T-4)- (9CI)
(CA INDEX NAME)



RN 158272-84-5 HCAPLUS

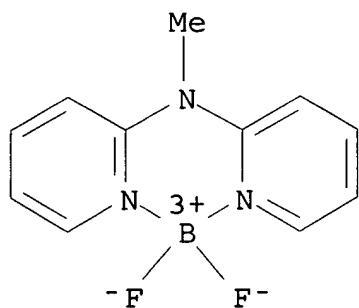
CN Boron(1+),
difluoro(N-methyl-N-2-pyridinyl-2-pyridinamine-NN2,N1)-
, (T-4)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 158272-83-4

CMF C11 H11 B F2 N3

CCI CCS

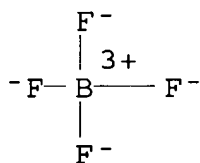


CM 2

CRN 14874-70-5

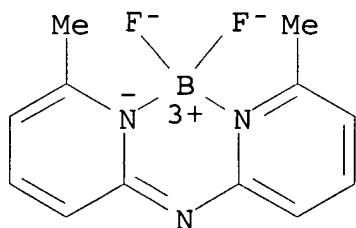
CMF B F4

CCI CCS



RN 158272-85-6 HCAPLUS

CN Boron, difluoro[6-methyl-N-(6-methyl-2(1H)-pyridinylidene)-2-pyridinaminato-NN2,N1]-, (T-4)- (9CI) (CA INDEX NAME)



CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

IT 42029-62-9P 154675-05-5P **154827-68-6P** 157973-07-4P157973-08-5P 157973-09-6P **158080-55-8P****158272-84-5P 158272-85-6P**

RL: PRP (Properties); SPN (Synthetic preparation); PREP

(Preparation)

(preparation of fluorescent tricyclic β -azavinamidine-fluoroboron complexes)

L36 ANSWER 31 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:641189 HCAPLUS

DOCUMENT NUMBER: 121:241189

TITLE: Spectroscopy and laser performance of new BF₂-complex dyes in solution

AUTHOR(S): Allik, Toomas H.; Hermes, Robert E.; Sathyamoorthi, Govindarao; Boyer, Joseph H.

CORPORATE SOURCE: Sci. Appl. Int. Corp., McLean, VA, 22102, USA
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1994), 2115(Visible and UV Lasers), 240-8
CODEN: PSISDG; ISSN: 0277-786X

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Four new BF₂-complex laser dyes were synthesized and spectroscopic

and laser studies were performed. The 8-cyanopyrromethene-BF₂ complexes showed the best performance with red emission and slope efficiencies $\leq 48\%$ when pumped with a frequency doubled Nd:YAG laser. Three previously known pyrromethene-BF₂ complex dyes obtained from a com. source were tested. These dyes showed

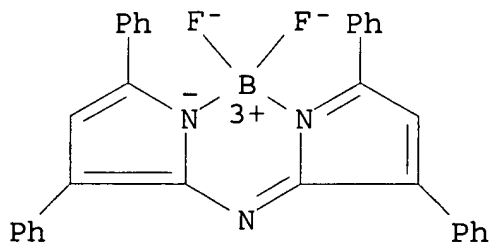
a relative efficiency of $>80\%$, with 1 (PM-580) displaying a slope efficiency of 89% . This efficiency is the highest reported for any dye laser.

IT 154827-68-6, 1,3,5,7-Tetraphenyl-8-azapyrromethene-boron difluoride

RL: DEV (Device component use); PRP (Properties); USES (Uses) (spectroscopy and laser performance of)

RN 154827-68-6 HCAPLUS

CN Boron, [N-(3,5-diphenyl-2H-pyrrol-2-ylidene- κ N)-3,5-diphenyl-1H-pyrrol-2-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 41

IT 86722-65-8, Difluoroboron(III)2,3,7,8,12,13,17,18-octaethyl-21H,24H-bilin-1,19-dione-N22,N23 131083-16-4, PM-567
137829-79-9, PM-580 **154827-68-6**, 1,3,5,7-Tetraphenyl-8-azapyrromethene-boron difluoride 157410-22-5,
1,2,6,7-Tetraethyl-3,5-dimethyl-8-cyanopyrromethene-boron difluoride 157410-23-6, 1,2,3,5,6,7-Hexamethyl-8-cyanopyrromethene-boron difluoride

RL: DEV (Device component use); PRP (Properties); USES (Uses)
(spectroscopy and laser performance of)

L36 ANSWER 32 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:265320 HCAPLUS

DOCUMENT NUMBER: 120:265320

TITLE: Fluorescent microparticles with controllable enhanced Stokes shift

INVENTOR(S): Brinkley, John M.; Haugland, Richard P.; Singer, Victoria L.

PATENT ASSIGNEE(S): Molecular Probes, Inc., USA

SOURCE: PCT Int. Appl., 41 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 11

PATENT INFORMATION:

DATE	PATENT NO.	KIND	DATE	APPLICATION NO.
	-----	----	-----	-----

	WO 9323492	A1	19931125	WO 1993-US4334

1993

0507

W: CA, JP

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL,
PT, SE

US 5326692 A 19940705 US 1992-882299

1992

0513

US 5326692 B1 19960430

EP 596098 A1 19940511 EP 1993-913815
1993
0507
EP 596098 B1 19980617
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT,
SE
JP 07508309 T2 19950914 JP 1994-502684
1993
0507
JP 3442777 B2 20030902
AT 167511 E 19980715 AT 1993-913815
1993
0507
CA 2113106 C 20001024 CA 1993-2113106
1993
0507
JP 2004002851 A2 20040108 JP 2003-128429
2003
0506
JP 3689412 B2 20050831
PRIORITY APPLN. INFO.: US 1992-882299 A
1992
0513
JP 1994-502684 A3
1993
0507
WO 1993-US4334 W
1993
0507

OTHER SOURCE(S): MARPAT 120:265320

AB Polymeric microparticles incorporating ≥ 2 fluorescent dyes having overlapping excitation and emission spectra, resulting in fluorescent microparticles with a desired effective Stoke shift are prepared and used for anal. of biomols., such as DNA and RNA. The fluorescent dyes are polyazaindacene, coumarin, hydrocarbon

or

substituted hydrocarbon dyes, etc. Thus, 4,4-difluoro-5,7-diphenyl-3-(pyrrol-2-yl)-4-bora-3a,4a-diaza-s-indacene (I) was prepared from 3,5-diphenylpyrrole-2-carboxaldehyde and 2,2'-bipyrrole, and an analog of I (II) was prepared from 3,5-diphenylpyrrole-2-carboxaldehyde and 2,4-dimethylpyrrole. A carboxylate-modified latex microparticle incorporating I and II was prepared and conjugated to oligonucleotide probes to

engrailed,

inverted and HOX genes for detecting developmentally important mRNA in Zebrafish embryos.

IT **154827-68-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)

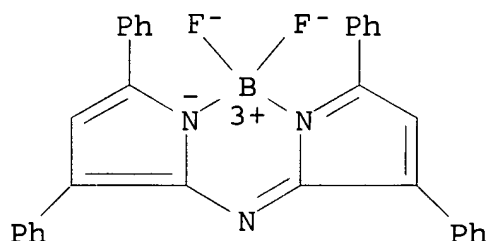
(preparation of, fluorescent microparticles incorporating,

for DNA

and RNA anal.)

RN 154827-68-6 HCAPLUS

CN Boron, [N-(3,5-diphenyl-2H-pyrrol-2-ylidene- κ N)-3,5-diphenyl-1H-pyrrol-2-aminato- κ N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM C09K011-06

ICS C12Q001-68

CC 9-5 (Biochemical Methods)

IT 21658-70-8P 126368-67-0P 152072-93-0P 154675-03-3P
154675-04-4P 154675-05-5P 154793-49-4P 154793-50-7P
154827-68-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of, fluorescent microparticles incorporating,

for DNA

and RNA anal.)

L36 ANSWER 33 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:481962 HCAPLUS

DOCUMENT NUMBER: 115:81962

TITLE: On the distribution of reactive barriers in disordered materials

AUTHOR(S): Schellenberg, P.; Friedrich, J.; Daltrozzi, E.

CORPORATE SOURCE: Inst. Phys. Chem., Johannes Gutenberg-Univ., Mainz, D-6500, Germany

SOURCE: Journal of Chemical Physics (1991), 95(1), 189-94

CODEN: JCPSA6; ISSN: 0021-9606

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The hole-burning photoreaction of a dye complex in alc. glass which undergoes both photochem. and photophys. transformations was

studied. Measuring sep. the disappearance of the photoproduct at the resp. wavelength ranges under thermal cycling conditions showed that the photochem. transformed species recovered according

to a Gaussian distribution of barrier heights, whereas the photophys. transformed species recovered in accordance with a $1/\sqrt{V}$ distribution. This behavior is rather general and is intimately related to the nature of the phototransformation process.

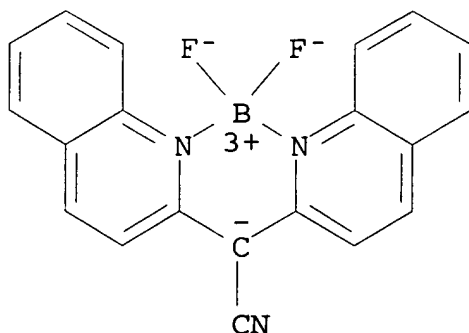
IT 73681-66-0

RL: USES (Uses)

(photochem. hole burning photoreaction of, in alc. glass)

RN 73681-66-0 HCAPLUS

CN Boron, difluoro[α -(2-quinolinyl- κ N)-2-quinolineacetonitrilato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 73647-28-6 **73681-66-0**

RL: USES (Uses)

(photochem. hole burning photoreaction of, in alc. glass)

L36 ANSWER 34 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:91588 HCAPLUS

DOCUMENT NUMBER: 114:91588

TITLE: Fluorescent chemical compositions useful as laser dyes and photodynamic therapy agents, and methods for their use

INVENTOR(S): Boyer, Joseph H.; Morgan, Lee Roy

PATENT ASSIGNEE(S): USA

SOURCE: Eur. Pat. Appl., 41 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

DATE	PATENT NO.	KIND	DATE	APPLICATION NO.
-----	-----	----	-----	-----
1989	EP 361936	A2	19900404	EP 1989-309921
0928	EP 361936	A3	19910403	
	EP 361936	B1	19960124	
	R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE			
	US 4916711	A	19900410	US 1988-251188
1988				
0929	AT 133418	E	19960215	AT 1989-309921
1989				
0928	JP 02196865	A2	19900803	JP 1989-252518
1989				

0929

JP 2880534

B2

19990412

PRIORITY APPLN. INFO.:

US 1988-251188

A

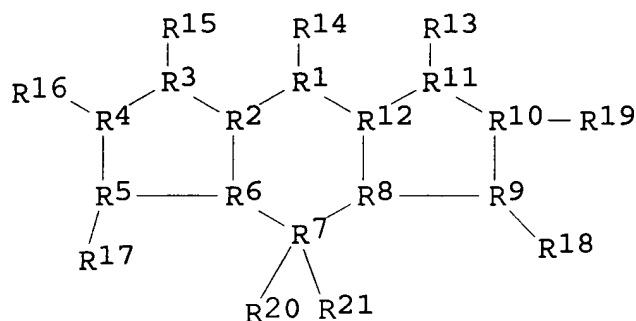
1988

0929

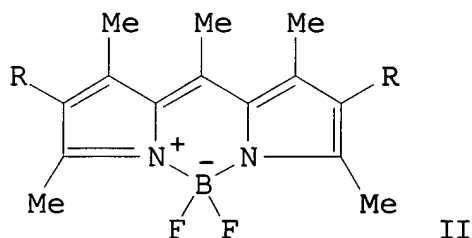
OTHER SOURCE(S):

MARPAT 114:91588

GI



I



II

AB Compds. having the general formula I (R1-R21 = organic and/or inorg.

groups) are described; their use as lasing dyes and as agents for photodynamic therapy for neoplastic growths is discussed.

Addnl.,

methods for producing the compds. described by the general formula

II with R = H or with R = -SO₃- Na⁺ are claimed. The compound described by the general formula II with R = -SO₃-Na⁺ was used as a laser dye (lasing threshold 10 kV; lasing wavelength range 545-585 nm) and as a photodynamic therapy agent against cancerous tumors in female Sprague-Dawley rats (tumor necrosis observed within

4 days; >75% tumor destruction) and in 2 human female subjects (substantial reduction in growth size over 3-6 wk).

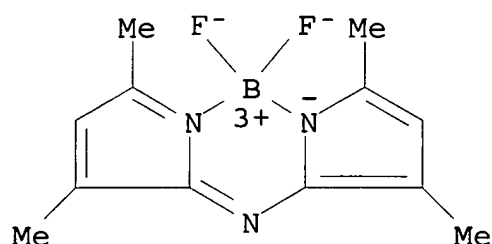
IT 130725-95-0

RL: PRP (Properties)

(laser dyes and photodynamic therapy agents containing)

RN 130725-95-0 HCAPLUS

CN Boron, [N-(3,5-dimethyl-2H-pyrrol-2-ylidene)-3,5-dimethyl-1H-pyrrol-2-aminato-NN2,N1]difluoro-, (T-4)- (9CI) (CA INDEX NAME)



IC ICM C07F005-02

ICS A61N005-06; C09B057-00; C07F003-02; C07F003-06; C07F013-00; C07D487-04; C07D487-14; C07D311-82; C07D241-38; C07C013-547

CC 73-10 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 1, 28, 41

IT 267-21-0, s-Indacene 267-46-9, Benzo[1,2-b:4,5-b']dipyrrole

268-14-4, Dicyclopenta[b,e]pyrazine 21658-70-8 21658-75-3

130725-69-8 130725-70-1 130725-71-2 130725-72-3

130725-73-4 130725-93-8 130725-94-9 **130725-95-0**

130743-57-6 130876-44-7 130876-45-8 130893-55-9,

3H,5H-Dipyrrolo[1,2-c:2',1'-f]pyrimidine 132071-56-8

RL: PRP (Properties)

(laser dyes and photodynamic therapy agents containing)

L36 ANSWER 35 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:196179 HCAPLUS

DOCUMENT NUMBER: 106:196179

TITLE: Di(benz[c,d]indolyl) amine and its derivatives

AUTHOR(S): Vasilenko, N. P.; Mikhailenko, F. A.

CORPORATE SOURCE: Inst. Org. Khim., Kiev, USSR

SOURCE: Ukrainskii Khimicheskii Zhurnal (Russian Edition) (1986), 52(3), 308-11

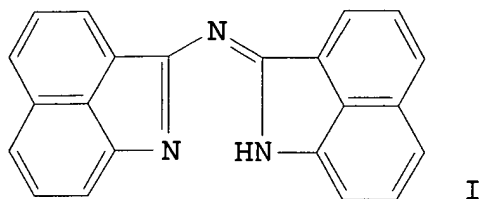
CODEN: UKZHAU; ISSN: 0041-6045

DOCUMENT TYPE: Journal

LANGUAGE: Russian

OTHER SOURCE(S): CASREACT 106:196179

GI



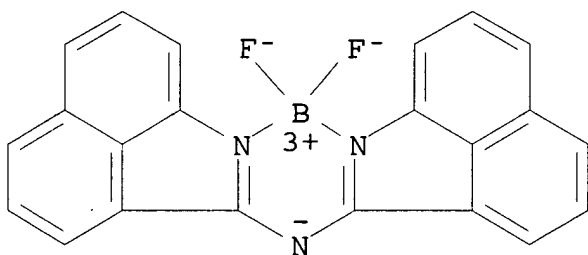
AB Refluxing 2-benz[c,d]indolamine-HI with 2-(methylthio)benz[c,d]indole-HI in o-C₆H₄Cl₂ containing Et₃N gave 65% title amine (I), which existed in the di-cis form with intramol. H bonding. A number of derivs. of benzindole and benzindolamine were also prepared

IT **108115-96-4P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 108115-96-4 HCAPLUS

CN Boron, (N-benz[cd]indol-2-yl)benz[cd]indol-2-amino-
NN2,N1)difluoro-, (T-4)- (9CI) (CA INDEX NAME)

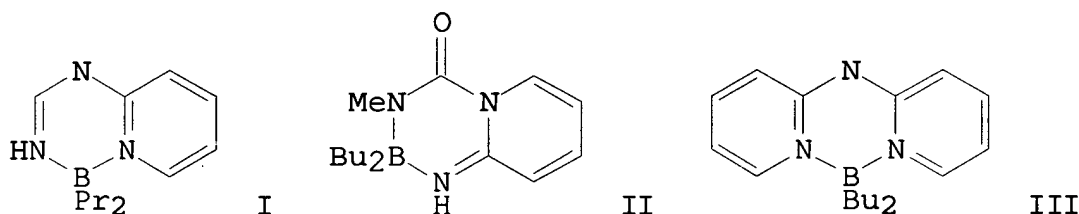


CC 27-11 (Heterocyclic Compounds (One Hetero Atom))

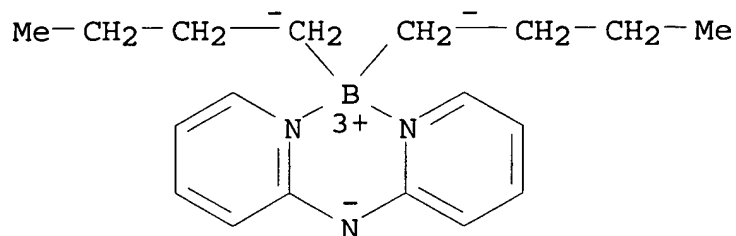
IT 54677-29-1P 67880-02-8P **108115-96-4P** 108155-26-6P
108155-29-9P 108155-30-2P 108155-31-3P 108155-32-4P
108155-33-5P 108155-34-6P 108155-35-7P 108155-36-8P
108155-37-9P 108155-38-0P 108155-39-1P 108155-40-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L36 ANSWER 36 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

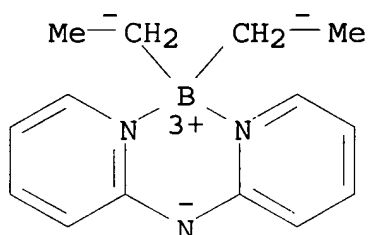
ACCESSION NUMBER: 1982:520158 HCAPLUS
 DOCUMENT NUMBER: 97:120158
 TITLE: Antiviral activity of boron chelates
 synthesized from 2-aminopyridine
 AUTHOR(S): Lagutkin, N. A.; Mitin, N. I.; Zubairov, M.
 M.; Dorokhov, V. A.; Mikhailov, B. M.
 CORPORATE SOURCE: Vses. Nauchno-Issled. Inst. Vet. Virusol.
 Mikrobiol. Minist. Sel'sk. Khoz., Pokrov,
 USSR
 SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1982),
 16(6), 695-9
 CODEN: KHFZAN; ISSN: 0023-1134
 DOCUMENT TYPE: Journal
 LANGUAGE: Russian
 GI



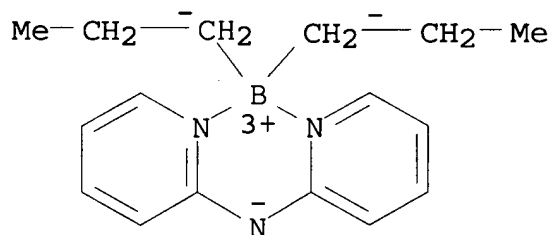
AB Nineteen boron chelates, 6 of which were synthesized from
 2-aminopyridine derivs. by various methods, were tested for
 antiviral activity in vitro, in ovo, and in vivo. The complexes
 I [60674-58-0], II [70469-68-0], and III [64800-07-3],
 are representative of the compds. having broad-spectrum antiviral
 activity against both DNA and RNA viruses.
 IT **64800-07-3P 64800-08-4P 82738-58-7P**
 RL: BAC (Biological activity or effector, except adverse); BSU
 (Biological study, unclassified); SPN (Synthetic preparation);
 THU (Therapeutic use); BIOL (Biological study); PREP (Preparation);
 USES (Uses)
 (preparation and antiviral activity of)
 RN 64800-07-3 HCAPLUS
 CN Boron, dibutyl(N-2-pyridinyl-2-pyridinaminato-NN,N1)-, (T-4)-
 (9CI) (CA INDEX NAME)



RN 64800-08-4 HCAPLUS

CN Boron, diethyl (N-2-pyridinyl-2-pyridinaminato-NN,N1)-, (T-4) -
(9CI) (CA INDEX NAME)

RN 82738-58-7 HCAPLUS

CN Boron, dipropyl [N-(2-pyridinyl-κN)-2-pyridinaminato-
κN1]-, (T-4) - (9CI) (CA INDEX NAME).

CC 1-5 (Pharmacology)

IT **64800-07-3P 64800-08-4P** 71521-37-4P82738-56-5P **82738-58-7P** 82738-59-8PRL: BAC (Biological activity or effector, except adverse); BSU
(Biological study, unclassified); SPN (Synthetic preparation);

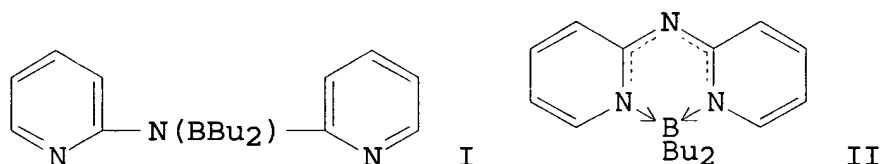
THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation);

USES (Uses)

(preparation and antiviral activity of)

L36 ANSWER 37 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1982:20145 HCAPLUS
DOCUMENT NUMBER: 96:20145
TITLE: Organoboron compounds. 392. 1,3-(N →
N) migration of the diorganylboryl group in
the 2-aminopyridine system
AUTHOR(S): Dorokhov, V. A.; Lavrinovich, L. I.;
Shashkov, A. S.; Mikhailov, B. M.
CORPORATE SOURCE: Inst Org. Khim., Moscow, USSR
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya
Khimicheskaya (1981), (6), 1371-3
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 96:20145
GI



AB Dibutyl(di-2-pyridylamino)borane (I), prepared by treating
Bu₂BSBu

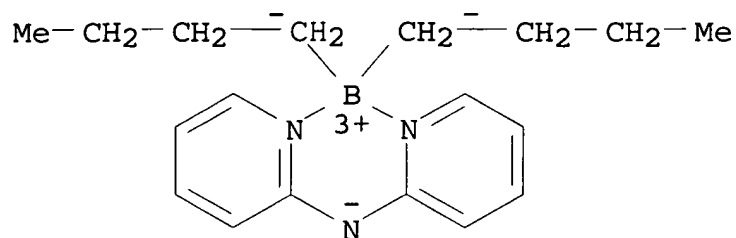
with 2,2'-iminodipyridine at .apprx.20°, rearranged at
100° via migration of a Bu₂B group) to give chelate II.

IT **64800-07-3P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 64800-07-3 HCAPLUS

CN Boron, dibutyl(N-2-pyridinyl-2-pyridinaminato-NN,N1)-, (T-4)-
(9CI) (CA INDEX NAME)



CC 29-4 (Organometallic and Organometalloidal Compounds)

IT **64800-07-3P** 79075-38-0P 80188-14-3P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L36 ANSWER 38 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1980:214409 HCAPLUS

DOCUMENT NUMBER: 92:214409

TITLE: The influence of viscosity on
fluorescence-quantum yields of a polymethine
dye diquinolinylncyanomethane

AUTHOR(S): Griebel, R.

CORPORATE SOURCE: Fak. Chem., Univ. Konstanz, Konstanz, 7750,
Fed. Rep. Ger.

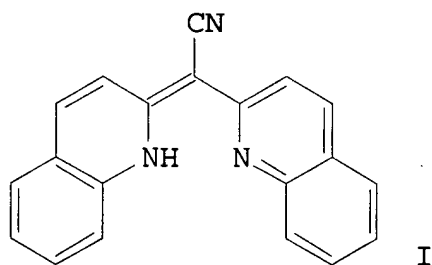
SOURCE: Berichte der Bunsen-Gesellschaft (1980),
84(1), 84-91

CODEN: BBPCAX; ISSN: 0005-9021

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB The fluorescence-quantum yield of the title compound (I)
depended on
the viscosity (temperature). This dependence was explained by
coupling

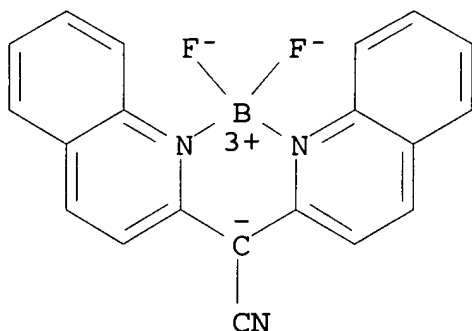
of the dominant and viscosity-dependent relaxation mode to an intramol. H/D bridge potential..

IT 73681-66-0

RL: PRP (Properties)
(fluorescence of)

RN 73681-66-0 HCAPLUS

CN Boron, difluoro[α -(2-quinolinyl- κ N)-2-quinolineacetonitrilato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



CC 22-2 (Physical Organic Chemistry)

Section cross-reference(s): 40

IT 25139-40-6 73647-26-4 73647-27-5 73647-28-6

73681-66-0

RL: PRP (Properties)
(fluorescence of)

L36 ANSWER 39 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1978:562623 HCAPLUS

DOCUMENT NUMBER: 89:162623

TITLE: Organoboron compounds. Communication 342.
Mass-spectrometric study of boron
imidoylamidates

AUTHOR(S): Zolotarev, B. M.; Chizhov, O. S.; Dorokhov,
V.

A.; Lavrinovich, L. I.; Mikhailov, B. M.
CORPORATE SOURCE: Inst. Org. Khim. im. Zelinskogo, Moscow, USSR
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya
Khimicheskaya (1978), (6), 1312-16
CODEN: IASKA6; ISSN: 0002-3353

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI For diagram(s), see printed CA Issue.

AB The mass spectra of 11 title compds., e.g., I-III were
determined and

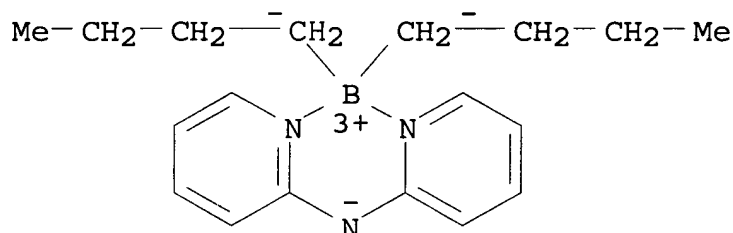
correlated with structure. The general fragmentation pattern began by splitting off of a group (R) attached to B to form the stable aromatic (M-R)⁺ ion.

IT 64800-07-3 64800-08-4

RL: PRP (Properties)
(mass spectrum of)

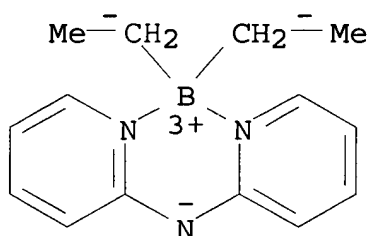
RN 64800-07-3 HCAPLUS

CN Boron, dibutyl(N-2-pyridinyl-2-pyridinaminato-NN,N1)-, (T-4) -
(9CI) (CA INDEX NAME)



RN 64800-08-4 HCAPLUS

CN Boron, diethyl(N-2-pyridinyl-2-pyridinaminato-NN,N1)-, (T-4) -
(9CI) (CA INDEX NAME)



CC 22-2 (Physical Organic Chemistry)

IT 34629-64-6 34629-66-8 34629-68-0 54637-45-5 60674-54-6

60674-58-0 60674-59-1 64800-07-3 64800-08-4

67574-75-8 67574-91-8

RL: PRP (Properties)
(mass spectrum of)

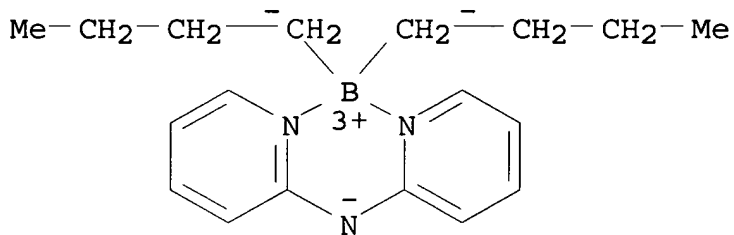
L36 ANSWER 40 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1977:601625 HCAPLUS

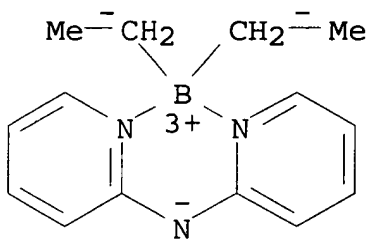
DOCUMENT NUMBER: 87:201625

TITLE: Reactions of 2-benzylaminopyridine and
2,2'-dipyridylamine with organoboron
compounds

AUTHOR(S): Dorokhov, V. A.; Lavrinovich, L. I.;
Mikhailov, B. M.
CORPORATE SOURCE: Inst. Org. Khim. im. Zelinskogo, Moscow, USSR
SOURCE: Izvestiya Akademii Nauk SSSR, Seriya
Khimicheskaya (1977), (8), 1921-3
CODEN: IASKA6; ISSN: 0002-3353
DOCUMENT TYPE: Journal
LANGUAGE: Russian
GI For diagram(s), see printed CA Issue.
AB Treating 2-benzylaminopyridine (I) with Pr_2BSBu in CH_2Cl_2 gave
92%
II, whereas reaction with Pr_3B at $115-25^\circ$ 5 h gave 63% II.
Cyclization of 2,2'-dipyridylamine with Bu_2BNH_2 at $150-80^\circ$
3 h gave 79% III ($\text{R} = \text{Bu}$); refluxing with Et_3N in benzene gave
92%
III ($\text{R} = \text{Et}$).
IT **64800-07-3P 64800-08-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 64800-07-3 HCAPLUS
CN Boron, dibutyl(N-2-pyridinyl-2-pyridinaminato-NN,N1)-, (T-4) -
(9CI) (CA INDEX NAME)



RN 64800-08-4 HCAPLUS
CN Boron, diethyl(N-2-pyridinyl-2-pyridinaminato-NN,N1)-, (T-4) -
(9CI) (CA INDEX NAME)



CC 29-4 (Organometallic and Organometalloidal Compounds)
IT 64738-97-2P 64738-98-3P 64738-99-4P **64800-07-3P**
64800-08-4P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L36 ANSWER 41 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1974:419043 HCAPLUS

DOCUMENT NUMBER: 81:19043

TITLE: New laser dyes

AUTHOR(S): Basting, D.; Schaefer, F. P.; Steyer, B.

CORPORATE SOURCE: Max-Planck-Inst. Biophys. Chem., Goettingen,
Fed. Rep. Ger.

SOURCE: Applied Physics (Berlin) (1974), 3(1), 81-8
CODEN: APHYCC; ISSN: 0340-3793

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A list of 73 new laser dyes is given. These dyes were obtained
in

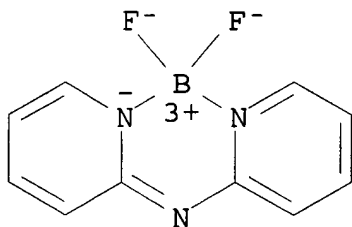
screening fluorescent dyes from a dye collection using a powerful
N laser of 1 MW peak power and 2.5 nsec pulse width.

IT **53217-33-7 53217-34-8**

RL: PRP (Properties)
(laser dye)

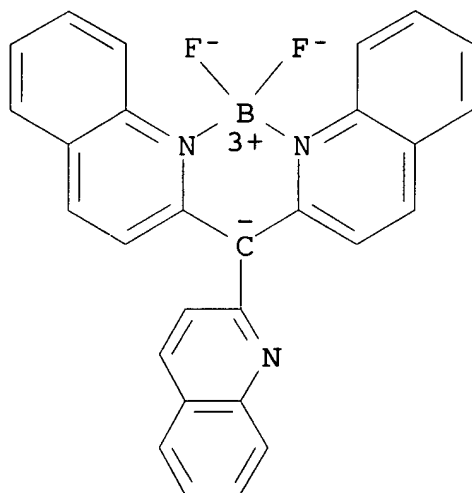
RN 53217-33-7 HCAPLUS

CN Boron, difluoro[N-(2(1H)-pyridinylidene-κN)-2-pyridinaminato-
κN1]-, (T-4)- (9CI) (CA INDEX NAME)



RN 53217-34-8 HCAPLUS

CN Boron, difluoro[2,2',2''-methylidynetris[quinolinato] (1-)-N,N']-,
(T-4)- (9CI) (CA INDEX NAME)



CC 73-6 (Spectra by Absorption, Emission, Reflection, or Magnetic Resonance, and Other Optical Properties)

IT 81-32-3 448-61-3 578-77-8 580-34-7 611-55-2 842-18-2

1041-00-5 1679-98-7 1911-95-1 1965-74-8 2340-23-0

2353-65-3 2535-63-9 2625-21-0 2729-51-3 2930-33-8

2930-35-0 3557-71-9 5516-22-3 6531-06-2 7456-37-3

14121-47-2 15696-48-7 19683-09-1 21148-00-5 21148-01-6

21148-02-7 23347-76-4 23347-83-3 26261-19-8 26261-21-2

26591-68-4 26867-94-7 29556-33-0 29641-53-0 32089-44-4

35096-73-2 36231-71-7 36245-88-2 36264-62-7 37501-65-8

52040-22-9 52688-28-5 52688-34-3 52688-35-4 52688-37-6

52688-38-7 52688-40-1 52688-41-2 52688-43-4 52688-44-5

52688-45-6 52688-46-7 52688-47-8 52725-14-1 52845-06-4

53217-33-7 53217-34-8 53217-43-9 53217-45-1

53217-46-2 53217-48-4 53217-50-8 53217-52-0 53217-54-2

53217-56-4 53217-58-6 53217-60-0 53217-62-2 53217-64-4

53217-65-5 53217-66-6 53230-55-0 53276-34-9

RL: PRP (Properties)
(laser dye)

L36 ANSWER 42 OF 42 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1969:434795 HCAPLUS

DOCUMENT NUMBER: 71:34795

TITLE: Franck-Condon principle and the light absorption of merocyanines

AUTHOR(S): Scheibe, Guenter; Daltrozzo, E.; Woerz, O.; Heiss, J.

CORPORATE SOURCE: Tech. Hochsch., Munich, Fed. Rep. Ger.

SOURCE: Zeitschrift fuer Physikalische Chemie

(Muenchen, Germany) (1969), 64(1-4), 97-114
 CODEN: ZPCFAX; ISSN: 0044-3336

DOCUMENT TYPE: Journal

LANGUAGE: German

AB In open-chain cyanines (polymethines) the intensity ratio of $0 \rightarrow 0'$, $0 \rightarrow 1'$, $0 \rightarrow 2'$ vibrational bands of the longest-wave electron transition is independent of the chain length. If this fact is explained by assuming that the distance of the potential curve min. between ground and excited state becomes smaller with increasing chain length, good conformity is found with the "extensions" which are obtained by L.C.A.O.-M.O. calcns. (Hueckel M.O. and Pople-Pariser-Parr approximation). In merocyanines (polyenes), considerably greater "extensions" result in the application of the Franck-Condon principle due to the comparatively strong intensity shift towards higher vibrational transitions. If no vibrational structure can be observed in the electron spectrum, the absorption maximum of the enveloping

curve may

appear at shorter wavelengths, although the $0 \rightarrow 0'$ transition may even lie at longer wavelengths than in the resp. sym. cyanine. The solvent may shift the symmetry of the dyes in merocyanines more towards the C_{2v} or more towards the C_0 symmetry and thus also cause shifts of the absorption maximum of

the

enveloping curve which need not be identical with shifts of the $0 \rightarrow 0'$ transition.

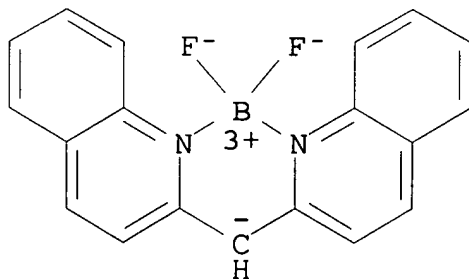
IT 23786-72-3 23786-74-5

RL: PRP (Properties)

(spectrum of, Franck-Condon factor in relation to electronic)

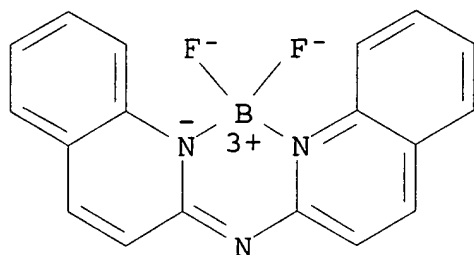
RN 23786-72-3 HCAPLUS

CN Boron, difluoro[[2,2'-methylenebis[quinolinato- κ N]](1-)]-, (T-4)- (9CI) (CA INDEX NAME)



RN 23786-74-5 HCAPLUS

CN Boron, difluoro[N-(2(1H)-quinolinylidene- κ N)-2-quinolinaminato- κ N1]-, (T-4)- (9CI) (CA INDEX NAME)



CC 73 (Spectra and Other Optical Properties)

IT 262-33-9 14709-19-4 20766-49-8 22967-05-1 23636-94-4
23664-31-5 23664-32-6 23664-33-7 23664-36-0 23664-38-2
23664-40-6 23664-42-8 23707-43-9 23707-44-0
23786-72-3 23786-74-5 25139-40-6 25180-01-2,
Quinoline, 1,2-dihydro-2,2'-methylidynedi- 25705-67-3
25779-28-6 25779-41-3

RL: PRP (Properties)

(spectrum of, Franck-Condon factor in relation to electronic)

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